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NEWS 8 Apr 22 Federal Research in Progress (FEDRIP) now  
available

NEWS 9 Jun 03 New e-mail delivery for search results now available

NEWS 10 Jun 10 MEDLINE Reload

NEWS 11 Jun 10 PCTFULL has been reloaded

NEWS 12 Jul 02 FOREGE no longer contains STANDARDS file  
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NEWS 13 Jul 22 USAN to be reloaded July 28, 2002;  
saved answer sets no longer valid

NEWS 14 Jul 29 Enhanced polymer searching in REGISTRY

NEWS 15 Jul 30 NETFIRST to be removed from STN

NEWS 16 Aug 08 CANCERLIT reload

NEWS 17 Aug 08 PHARMAMarketLetter(PHARMAML) - new on  
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NEWS 18 Aug 08 NTIS has been reloaded and enhanced

NEWS 19 Aug 09 JAPIO to be reloaded August 25, 2002

NEWS 20 Aug 19 Aquatic Toxicity Information Retrieval (AQUIRE)  
now available on STN

NEWS 21 Aug 19 IFIPAT, IFICDB, and IFIUDB have been reloaded

NEWS 22 Aug 19 The MEDLINE file segment of TOXCENTER has  
been reloaded

NEWS 23 Aug 26 Sequence searching in REGISTRY enhanced

NEWS EXPRESS February 1 CURRENT WINDOWS VERSION IS  
V6.0d,

CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND  
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AND CURRENT DISCOVER FILE IS DATED 05

FEBRUARY 2002

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=> s dry eye or xerosis or hypolacrimia or keratoconjunctivitis sicca

L1 4177 DRY EYE OR XEROSIS OR HYPOLACRIMIA OR  
KERATOCONJUNCTIVITIS SICCA

=> s animal model

L2 251329 ANIMAL MODEL

=> s l1 and l2

L3 49 L1 AND L2

=> dup rem l3

PROCESSING COMPLETED FOR L3

L4 43 DUP REM L3 (6 DUPLICATES REMOVED)

=> d ti so 1-43

L4 ANSWER 1 OF 43 MEDLINE DUPLICATE 1

TI Androgen deficiency, Meibomian gland dysfunction, and  
evaporative

dry eye.

SO ANNALS OF THE NEW YORK ACADEMY OF SCIENCES,  
(2002 Jun) 966 211-22. Ref:

121

Journal code: 7506858. ISSN: 0077-8923.

L4 ANSWER 2 OF 43 MEDLINE DUPLICATE 2

TI Expression of interleukin-4 in the epidermis of transgenic mice  
results in

a pruritic inflammatory skin disease: an experimental animal  
model to study atopic dermatitis.

SO JOURNAL OF INVESTIGATIVE DERMATOLOGY, (2001 Oct)  
117 (4) 977-83.

Journal code: 0426720. ISSN: 0022-202X.

L4 ANSWER 3 OF 43 BIOSIS COPYRIGHT 2002 BIOLOGICAL  
ABSTRACTS INC.

TI Estrogen and progesterone influence on gene expression in the  
lacrimal

gland.

SO IOVS, (March 15, 2001) Vol. 42, No. 4, pp. S712. print.

Meeting Info.: Annual Meeting of the Association for Research in  
Vision

and Ophthalmology Fort Lauderdale, Florida, USA April 29-May 04,  
2001

L4 ANSWER 4 OF 43 BIOSIS COPYRIGHT 2002 BIOLOGICAL  
ABSTRACTS INC.

TI Effect of UTP and cAMP on the fluid secretion in adenovirus type 5  
infected pigmented rabbit conjunctiva.

SO IOVS, (March 15, 2001) Vol. 42, No. 4, pp. S485. print.

Meeting Info.: Annual Meeting of the Association for Research in  
Vision

and Ophthalmology Fort Lauderdale, Florida, USA April 29-May 04,

2001

L4 ANSWER 5 OF 43 MEDLINE DUPLICATE 3  
TI Sjogren's syndrome: immunological response underlying the disease.  
SO ARCHIVUM IMMUNOLOGIAE ET THERAPIAE EXPERIMENTALIS, (2001) 49 (5) 353-60.  
Ref: 62  
Journal code: 0114365. ISSN: 0004-069X.

L4 ANSWER 6 OF 43 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
TI Epithelial mucins of the ocular surface: Structure, biosynthesis and function.  
SO Experimental Eye Research, (September, 2001) Vol. 73, No. 3, pp. 281-289.  
print.  
ISSN: 0014-4835.

L4 ANSWER 7 OF 43 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
TI A new **dry-eye animal model** using GVH reactions.  
SO IOVS, (March 15, 2001) Vol. 42, No. 4, pp. S263. print.  
Meeting Info.: Annual Meeting of the Association for Research in Vision and Ophthalmology Fort Lauderdale, Florida, USA April 29-May 04, 2001

L4 ANSWER 8 OF 43 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
TI Long-term changes in the ocular surface and tear flow after pre-ganglionic, parasympathetic denervation in the rabbit.  
SO IOVS, (March 15, 2001) Vol. 42, No. 4, pp. S263. print.  
Meeting Info.: Annual Meeting of the Association for Research in Vision and Ophthalmology Fort Lauderdale, Florida, USA April 29-May 04, 2001

L4 ANSWER 9 OF 43 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
TI A new **animal model** of **dry eyes**.  
SO IOVS, (March 15, 2001) Vol. 42, No. 4, pp. S262. print.  
Meeting Info.: Annual Meeting of the Association for Research in Vision and Ophthalmology Fort Lauderdale, Florida, USA April 29-May 04, 2001

L4 ANSWER 10 OF 43 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
TI Over-expression of nitric oxide by pro-inflammatory cytokines in cultured lacrimal gland acinar cells: A possible factor in **dry eye syndrome**.  
SO IOVS, (March 15, 2001) Vol. 42, No. 4, pp. S258. print.  
Meeting Info.: Annual Meeting of the Association for Research in Vision and Ophthalmology Fort Lauderdale, Florida, USA April 29-May 04, 2001

L4 ANSWER 11 OF 43 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
TI Corneal protection by the ocular mucin secretagogue 15(S)-HETE in a rabbit **dry eye model**.  
SO IOVS, (March 15, 2001) Vol. 42, No. 4, pp. S177. print.  
Meeting Info.: Annual Meeting of the Association for Research in Vision and Ophthalmology Fort Lauderdale, Florida, USA April 29-May 04, 2001

L4 ANSWER 12 OF 43 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
TI Improvement of corneal barrier function by the P2Y2 agonist

INS365 in a rat **dry eye model**.  
SO IOVS, (January, 2001) Vol. 42, No. 1, pp. 96-100. print.

L4 ANSWER 13 OF 43 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
TI Effects of OPC-12759 ophthalmic suspension on N-acetylcysteine-treated eyes.  
SO IOVS, (March 15, 2001) Vol. 42, No. 4, pp. S37. print.  
Meeting Info.: Annual Meeting of the Association for Research in Vision and Ophthalmology Fort Lauderdale, Florida, USA April 29-May 04, 2001

L4 ANSWER 14 OF 43 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
TI Experimentally induced **dry eye** produces ocular surface inflammation and epithelial disease.  
SO IOVS, (March 15, 2001) Vol. 42, No. 4, pp. S31. print.  
Meeting Info.: Annual Meeting of the Association for Research in Vision and Ophthalmology Fort Lauderdale, Florida, USA April 29-May 04, 2001

L4 ANSWER 15 OF 43 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
TI Proliferation of lacrimal gland acinar cells in primary culture. Stimulation by extracellular matrix, EGF, and DHT.  
SO Experimental Eye Research, (May, 2000) Vol. 70, No. 5, pp. 639-649. print.  
ISSN: 0014-4835.

L4 ANSWER 16 OF 43 MEDLINE  
TI Microvascular submandibular gland transfer for severe cases of keratoconjunctivitis sicca.  
SO PLASTIC AND RECONSTRUCTIVE SURGERY, (2000 Sep) 106 (3) 554-60; discussion 561-2.  
Journal code: 1306050. ISSN: 0032-1052.

L4 ANSWER 17 OF 43 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
TI Gefarnate stimulates goblet cell repopulation after an experimental wound to the tarsal conjunctiva in **dry eye rabbits**.  
SO IOVS, (March 15, 2000) Vol. 41, No. 4, pp. S275. print.  
Meeting Info.: Annual Meeting of the Association in Vision and Ophthalmology. Fort Lauderdale, Florida, USA April 30-May 05, 2000  
Association for Research in Vision and Ophthalmology

L4 ANSWER 18 OF 43 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
TI Comparative study of the efficacy of various moisturizers on the skin of the ASR miniature swine.  
SO Skin Pharmacology and Applied Skin Physiology, (March April, 2000) Vol. 13, No. 2, pp. 120-127.  
ISSN: 1422-2868.

L4 ANSWER 19 OF 43 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
TI Pregnancy and lactation induce changes in FGF2 and TGFbeta1 distribution in the rabbit lacrimal gland: A potential basis for predisposition to **dry eye syndrome**.  
SO Journal of Investigative Medicine, (January, 2000) Vol. 48, No. 1, pp. 58A. print.  
Meeting Info.: Meeting of the American Federation for Medical Research,

Western Region Carmel, California, USA February 09-12, 2000  
ISSN: 1081-5589.

L4 ANSWER 20 OF 43 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

TI Autologous lacrimal-lymphoid mixed-cell reactions induce dacryoadenitis in rabbits.

SO Experimental Eye Research, (July, 2000) Vol. 71, No. 1, pp. 23-31. print.

ISSN: 0014-4835.

L4 ANSWER 21 OF 43 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

TI Changes in expression of Maxi-K channels in aging NZB/NZW F1 female mouse lacrimal gland acinar cells.

SO IOVS, (March 15, 1999) Vol. 40, No. 4, pp. S985.

Meeting Info.: Annual Meeting of the Association for Research in Vision and Ophthalmology Fort Lauderdale, Florida, USA May 9-14, 1999 Association for Research in Vision and Ophthalmology

L4 ANSWER 22 OF 43 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

TI Functional recovery and prevention of apoptosis in lacrimal gland acinar

cells by topical application of cyclosporine A in Sjogren's syndrome model mouse.

SO IOVS, (March 15, 1999) Vol. 40, No. 4, pp. S554.

Meeting Info.: Annual Meeting of the Association for Research in Vision and Ophthalmology Fort Lauderdale, Florida, USA May 9-14, 1999 Association for Research in Vision and Ophthalmology

L4 ANSWER 23 OF 43 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

TI Removal of main and accessory lacrimal glands in experimental dry eye models in rabbits and squirrel monkeys.

SO IOVS, (March 15, 1999) Vol. 40, No. 4, pp. S538.

Meeting Info.: Annual Meeting of the Association for Research in Vision and Ophthalmology Fort Lauderdale, Florida, USA May 9-14, 1999 Association for Research in Vision and Ophthalmology

L4 ANSWER 24 OF 43 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

TI Impact of gender on exocrine gland inflammation in mouse models of

Sjogren's syndrome.

SO Experimental Eye Research, (Oct., 1999) Vol. 69, No. 4, pp. 355-366.

ISSN: 0014-4835.

L4 ANSWER 25 OF 43 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

TI Development of a simple dry eye model in the albino rabbit and evaluation of some tear substitutes.

SO Ophthalmic Research, (May-June, 1999) Vol. 31, No. 3, pp. 229-235.

ISSN: 0030-3747.

L4 ANSWER 26 OF 43 CAPLUS COPYRIGHT 2002 ACS

TI Transfer of human serum IgG to nonobese diabetic Ig.mu.null mice reveals a

role for autoantibodies in the loss of secretory function of exocrine tissues in Sjogren's syndrome

SO Proceedings of the National Academy of Sciences of the United States of

America (1998), 95(13), 7538-7543

CODEN: PNASA6; ISSN: 0027-8424

L4 ANSWER 27 OF 43 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

TI Biochemical analysis of ocular surface mucin abnormalities in dry eye: The canine model.

SO Experimental Eye Research, (Dec., 1998) Vol. 67, No. 6, pp. 709-718.

ISSN: 0014-4835.

L4 ANSWER 28 OF 43 CAPLUS COPYRIGHT 2002 ACS

TI The immunology of Sjogren's syndrome: emphasis on the role of salivary

gland autoantigen

SO Biomedical Reviews (1998), 9, 131-141

CODEN: BMREES; ISSN: 1310-392X

L4 ANSWER 29 OF 43 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

TI Lacrimal gland innervation is not altered with the onset and progression

of disease in a murine model of Sjogren's syndrome.

SO Clinical Immunology and Immunopathology, (Nov., 1998) Vol. 89, No. 2, pp.

126-133.

ISSN: 0090-1229.

L4 ANSWER 30 OF 43 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

TI Lactoferrin suppresses loss of corneal epithelial integrity in a rabbit short-term dry eye model.

SO Journal of Ocular Pharmacology and Therapeutics, (April, 1998) Vol. 14,

No. 2, pp. 99-107.

ISSN: 1080-7683.

L4 ANSWER 31 OF 43 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

TI Gefarnate stimulates secretion of mucin-like glycoproteins by corneal

epithelium in vitro and protects corneal epithelium from desiccation in

vivo.

SO Experimental Eye Research, (1997) Vol. 65, No. 4, pp. 569-574.

ISSN: 0014-4835.

L4 ANSWER 32 OF 43 MEDLINE

TI Sjogren's syndrome. Controversies and progress.

SO CLINICS IN LABORATORY MEDICINE, (1997 Sep) 17 (3) 431-44. Ref: 78

Journal code: 8100174. ISSN: 0272-2712.

L4 ANSWER 33 OF 43 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

TI The effects of artificial tear solutions on wound healing in full thickness corneal incisions.

SO Acta Physiologica Hungarica, (1997) Vol. 85, No. 3, pp. 251-258. ISSN: 0231-424X.

L4 ANSWER 34 OF 43 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

TI Androgen stimulation of lacrimal gland function in mouse models of Sjogren's syndrome.

SO Journal of Steroid Biochemistry and Molecular Biology, (1997) Vol. 60, No.

3-4, pp. 237-245.

ISSN: 0960-0760.

L4 ANSWER 35 OF 43 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

TI Non-Sjogren dry eye: Pathogenesis diagnosis and

**animal models.**

SO Sullivan, D. A. [Editor]. Advances in Experimental Medicine and Biology, (1994) Vol. 350, pp. 471-488. Advances in Experimental Medicine and

Biology; Lacrimal gland, tear film, and dry eye syndromes: Basic science and clinical relevance.

Publisher: Plenum Press 233 Spring Street, New York, New York, USA.

Meeting Info.: International Conference Southampton, Bermuda November

14-17, 1992

ISSN: 0065-2598. ISBN: 0-306-44676-6.

L4 ANSWER 36 OF 43 MEDLINE

TI Epidemiology, pathogenesis, **animal models**, and treatment of Sjogren's syndrome.

SO CURRENT OPINION IN RHEUMATOLOGY, (1994 Sep) 6 (5) 501-8. Ref: 89

Journal code: 9000851. ISSN: 1040-8711.

L4 ANSWER 37 OF 43 MEDLINE

TI Non-Sjogren **dry eye**: pathogenesis diagnosis and **animal models**.

SO ADVANCES IN EXPERIMENTAL MEDICINE AND BIOLOGY, (1994) 350 471-88. Ref:

127

Journal code: 0121103. ISSN: 0065-2598.

L4 ANSWER 38 OF 43 MEDLINE

DUPLICATE 4

TI Efficacy of laser punctal occlusion.

SO OPHTHALMOLOGY, (1992 Apr) 99 (4) 618-21.

Journal code: 7802443. ISSN: 0161-6420.

L4 ANSWER 39 OF 43 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

TI COMPARATIVE EFFECTS OF PRESERVATIVE FREE TEAR SUBSTITUTES ON THE RABBIT CORNEA A SCANNING ELECTRON MICROSCOPIC EVALUATION.

SO ANNUAL SPRING MEETING OF THE ASSOCIATION FOR RESEARCH IN VISION AND OPHTHALMOLOGY, SARASOTA, FLORIDA, USA, APRIL 28-MAY 3, 1991. INVEST

OPHTHALMOL VISUAL SCI. (1991) 32 (4), 733.

CODEN: IOVSDA. ISSN: 0146-0404.

L4 ANSWER 40 OF 43 MEDLINE

TI Argon laser versus thermal cautery for punctal occlusion. An animal study.

SO OPHTHALMIC PLASTIC AND RECONSTRUCTIVE SURGERY, (1991) 7 (3) 173-6.

Journal code: 8508431. ISSN: 0740-9303.

L4 ANSWER 41 OF 43 MEDLINE

TI Ocular disease associated with Epstein-Barr virus infection.

SO SURVEY OF OPHTHALMOLOGY, (1990 Sep-Oct) 35 (2) 145-50. Ref: 59

Journal code: 0404551. ISSN: 0039-6257.

L4 ANSWER 42 OF 43 MEDLINE

DUPLICATE 5

TI Sjogren's syndrome in MRL/l and MRL/n mice.

SO ARTHRITIS AND RHEUMATISM, (1984 Feb) 27 (2) 157-65.

Journal code: 0370605. ISSN: 0004-3591.

L4 ANSWER 43 OF 43 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

TI A NEW MOUSE CORNEAL DYSTROPHY.

SO ANNUAL MEETING OF THE ASSOCIATION FOR RESEARCH IN VISION AND OPHTHALMOLOGY INCORPORATED, SARASOTA, FLA., USA, APR. 30-MAY 4, 1979. INVEST OPHTHALMOL VISUAL SCI. (1979) 0 (SUPPL ), 74.

CODEN: IOVSDA. ISSN: 0146-0404.

=> d ibib ab 36,35,30,27,25,24,17,14,1211,9,7

43 ANSWERS ARE AVAILABLE. SPECIFIED ANSWER NUMBER EXCEEDS ANSWER SET SIZE

The answer numbers requested are not in the answer set.

ENTER ANSWER NUMBER OR RANGE (1):end

=> d ibib ab 36,35,30,27,25,24,17,14,12,11,9,7

L4 ANSWER 36 OF 43 MEDLINE

ACCESSION NUMBER: 95085859 MEDLINE

DOCUMENT NUMBER: 95085859 PubMed ID: 7993708

TITLE: Epidemiology, pathogenesis, **animal models**, and treatment of Sjogren's syndrome.

AUTHOR: Fox R I

CORPORATE SOURCE: Department of Rheumatology, Scripps Clinic and Research

Foundation, La Jolla, CA 92037.

CONTRACT NUMBER: M01 RR00833 (NCRR)

SOURCE: CURRENT OPINION IN RHEUMATOLOGY, (1994 Sep) 6 (5) 501-8.

Ref: 89

Journal code: 9000851. ISSN: 1040-8711.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

(REVIEW, TUTORIAL)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199501

ENTRY DATE: Entered STN: 19950126

Last Updated on STN: 19950126

Entered Medline: 19950119

AB Sjogren's syndrome is characterized by **dry eyes**

(xerophthalmia) and dry mouth (xerostomia). Although general agreement

exists about the ocular features of Sjogren's syndrome, significant controversy surrounds the classification criteria for defining the oral component. This has resulted in confusion in both the clinical and the research literature. The recent litigation involving silicone breast implants has forced clinicians to evaluate critically whether the condition of a particular patient fulfills specific diagnostic criteria for Sjogren's syndrome. Research studies have focused on potential genetic

and environmental factors in the pathogenesis of Sjogren's syndrome. Studies of various ethnic populations have demonstrated an association

with particular HLA-DR and -DQ alleles. However, the associated alleles

are different for each ethnic group. No single environmental agent has

been identified as a critical cofactor. Studies have concentrated on herpesviruses (Epstein-Barr virus and human herpesvirus type 6), hepatitis

C virus, and retroviruses. Epstein-Barr virus isolated from patients has

altered the ability to transform and lytically infect particular types of lymphocytes. Hepatitis C can lead to sicca symptoms, even in patients with

relatively normal salivary gland biopsy findings. One report of Japanese

patients indicated the presence of human T cell lymphotropic virus type

I-like tax genes in the salivary biopsy specimens of a subset of patients

and no gag, pol, or env sequences; this finding suggested a potential infection by a defective retrovirus. Studies on the pathogenesis have indicated that cytokines produced in the salivary gland are similar to T

helper type 1 lymphocytes (interferon gamma).(ABSTRACT TRUNCATED AT 250

WORDS)

L4 ANSWER 35 OF 43 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

ACCESSION NUMBER: 1995:1295 BIOSIS

DOCUMENT NUMBER: PREV199598015595

TITLE: Non-Sjogren **dry eye**: Pathogenesis diagnosis and animal models.

AUTHOR(S): Bron, Anthony J.

CORPORATE SOURCE: Nuffield Lab. Ophthalmol., Univ. Oxford, Oxford OX2 6AW UK

SOURCE: Sullivan, D. A. [Editor]. Advances in Experimental Medicine

and Biology, (1994) Vol. 350, pp. 471-488. Advances in Experimental Medicine and Biology; Lacrimal gland, tear film, and dry eye syndromes: Basic science and clinical relevance.

Publisher: Plenum Press 233 Spring Street, New York, New York, USA.

Meeting Info.: International Conference Southampton, Bermuda November 14-17, 1992

ISSN: 0065-2598. ISBN: 0-306-44676-6.

DOCUMENT TYPE: Book; Conference

LANGUAGE: English

L4 ANSWER 30 OF 43 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

ACCESSION NUMBER: 1998:261667 BIOSIS

DOCUMENT NUMBER: PREV199800261667

TITLE: Lactoferrin suppresses loss of corneal epithelial integrity

in a rabbit short-term **dry eye** model.

AUTHOR(S): Fujihara, Tsutomu (1); Nagano, Takashi; Nakamura, Masatsugu; Shirasawa, Eiichi

CORPORATE SOURCE: (1) Santen Pharmaceutical Co., Ltd. Nara Res. Develop.

Cent., 8916-16, Takayama-cho, Ikoma-shi, Nara, 630-01

Japan

SOURCE: Journal of Ocular Pharmacology and Therapeutics, (April,

1998) Vol. 14, No. 2, pp. 99-107.

ISSN: 1080-7683.

DOCUMENT TYPE: Article

LANGUAGE: English

AB Human tear fluid contains lactoferrin at the highest concentration. In

patients with **dry eye** such as Sjogren's syndrome, the concentration of lactoferrin in the tears is approximately half the normal

value. The present study utilizes a short-term rabbit **dry eye** model to evaluate if lactoferrin containing eye drops can reverse any of the damage produced by blockage of blinking with an ocular

speculum. Damage was evaluated based on the extent of methylene blue

staining in histological sections. After 3 h of desiccation, the amount of extractable dye recovered following sacrifice increased by more than

4-fold in the vehicle-treated eyes. However, in those rabbits treated with

1% lactoferrin, dye recovery was only 40% of the value in the vehicle-treated eyes. Between 1-3 h and over a concentration range from

0.01 to 1% lactoferrin, the decreases in staining were both time and concentration dependent. Alternatively, if 1% lactoferrin was applied during the desiccation period, there was partial restoration of corneal epithelial integrity. These results suggest that lactoferrin may be of therapeutic value in decreasing the loss of corneal epithelial integrity in **dry eye**.

L4 ANSWER 27 OF 43 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

ACCESSION NUMBER: 1999:151081 BIOSIS

DOCUMENT NUMBER: PREV199900151081

TITLE: Biochemical analysis of ocular surface mucin

abnormalities

in **dry eye**: The canine model.

AUTHOR(S): Hicks, Sally J.; Corfield, Anthony P.; Kaswan, Renee L.;

Hirsh, Susan; Stern, Michael; Bara, Jacques; Carrington, Stephen D. (1)

CORPORATE SOURCE: (1) Dep. Anat., Sch. Vet. Sci., Southwell St., Bristol BS2

8EJ UK

SOURCE: Experimental Eye Research, (Dec., 1998) Vol. 67, No. 6, pp.

709-718.

ISSN: 0014-4835.

DOCUMENT TYPE: Article

LANGUAGE: English

AB This study examines the canine model of keratoconjunctivitis sicca (KCS, '**dry eye**') in order to establish the biochemical basis of

altered ocular mucin secretion in this condition. It follows a previous examination of ocular mucins in the normal dog. Mucus was

collected by

suction from the ocular surface of dogs with KCS, and dispersed in guanidine hydrochloride containing a cocktail of protease inhibitors. Caesium chloride density gradient centrifugation was used to separate floating 'rafts' of cell membranes from gradients containing secreted mucins. Gradient fractions were collected into pools on the basis of differential staining by Periodic Acid Schiff, Wheat Germ

Agglutinin, and

antibodies to MUC5AC peptide. High molecular weight

glycoproteins were

purified from the pooled material by gel filtration chromatography.

Membrane-associated glycoproteins were also derived from the membrane

rafts using octyl glucoside extraction and/or reduction and alkylation.

Secreted mucins and membrane extracts from KCS samples were

compared to

equivalent material obtained from normal eyes. Density gradient staining

profiles for normal and KCS mucus were similar over the buoyant density

range typical for secreted mucins, enabling the collection of identical pools of gradient fractions for direct comparison. The following differences were observed in KCS secreted mucins compared to normal

samples: an increase in the proportion of mucin with low buoyant density;

a decrease in mannose content detected with Concanavalin A lectin;

an

increase in N-acetylglucosamine structures detected with

Lycopersicon

esculentum lectin; increased migration and lack of evidence for distinct

subunit structure on agarose gels. In membrane extracts, the main difference was the presence of T antigen (Galbeta1-3GalNAc) in

KCS. These

results demonstrate alterations in the subunit linkage of mucins in KCS,

and suggest that glycosylation, core protein expression and/or post-synthetic modification of ocular surface mucins may also be changed.

L4 ANSWER 25 OF 43 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

ACCESSION NUMBER: 1999:307975 BIOSIS

DOCUMENT NUMBER: PREV199900307975

TITLE: Development of a simple **dry eye** model

in the albino rabbit and evaluation of some tear substitutes.

AUTHOR(S): Burgalassi, Susi (1); Panichi, Luana; Chetoni, Patrizia;

Saettone, M. Fabrizio; Boldrini, Enrico

CORPORATE SOURCE: (1) Department of Pharmaceutical Sciences, University of

Pisa, Via Bonanno 33, I-56126, Pisa Italy

SOURCE: Ophthalmic Research, (May-June, 1999) Vol. 31, No. 3, pp.

229-235.  
ISSN: 0030-3747.

DOCUMENT TYPE: Article

LANGUAGE: English

SUMMARY LANGUAGE: English

AB The present paper is concerned with the development of a simple **dry eye** model in the rabbit, induced by daily repeated instillations of 1.0% atropine sulphate. The evolution of the **dry eye** syndrome in the animals was assessed by the Schirmer I test and by examination of the cornea after fluorescein staining. The model

produced rapidly some typical **dry eye** symptoms and could be satisfactorily used for a preliminary assessment of the protective activity of some polymeric tear substitutes. These were based on hydroxypropylmethylcellulose, sodium hyaluronate, sodium polyacrylate or tamarind gum. The latter polymer showed the best overall results. Ferning tests on the formulations were also performed: their validity as predictors of the efficacy of tear substitutes is discussed.

L4 ANSWER 24 OF 43 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

ACCESSION NUMBER: 1999:528292 BIOSIS

DOCUMENT NUMBER: PREV199900528292

TITLE: Impact of gender on exocrine gland inflammation in mouse models of Sjogren's syndrome.

AUTHOR(S): Toda, Ikuko; Sullivan, Benjamin D.; Rocha, Eduardo M.; Da Silveira, Lilia A.; Wickham, L. Alexandra; Sullivan, David A. (1)

CORPORATE SOURCE: (1) Schepens Eye Research Institute, 20 Staniford Street, Boston, MA, 02114 USA

SOURCE: Experimental Eye Research, (Oct., 1999) Vol. 69, No. 4, pp.

355-366.  
ISSN: 0014-4835.

DOCUMENT TYPE: Article

LANGUAGE: English

SUMMARY LANGUAGE: English

AB Sjogren's syndrome is a complex autoimmune disorder, that occurs almost

exclusively in females, induces extensive lymphocyte accumulation in lacrimal and salivary glands, and represents one of the leading causes of

**dry eye** and mouth in the world. The purpose of this study was to determine whether the profound, gender-related differences observed in the magnitude of exocrine gland inflammation in Sjogren's

syndrome may also be found in tissues of mouse models of this disorder. Lacrimal and submandibular glands were obtained from adult MRL/lpr, MRL+/+

(MRL+), NZB/NZW F1 (F1), C3H/lpr, C3H/gld (gld), C57BL/6-lpr/lpr (B6/lpr; with (bcl-2+/lpr) or without (bcl-2-/lpr) bcl-2 transgene insertion) and nonobese diabetic (NOD) mice after the onset of autoimmune disease, and

processed for microscopy and image analysis. Our results showed that: (1)

the extent of inflammation was significantly greater in lacrimal glands of

female MRL/lpr, MRL+, F1, C3H/lpr and gld mice, and salivary glands of

female MRL+, F1 and gld mice, relative to those of males; (2) the severity

of inflammation in NOD mice showed a tissue-specific pattern:

inflammation

was far worse in lacrimal glands of males, whereas immune pathology was

far greater in salivary tissues in females; and (3) no gender-related variations were present in the degree of inflammation in lacrimal glands

of bcl-2+/lpr and bcl-2-/lpr mice or in submandibular tissues of MRL/lpr,

C3H/lpr, bcl-2+/lpr and bcl-2-/lpr mice. Our findings demonstrate that

gender-, strain- and tissue-related differences exist in the extent of inflammation in several mouse models of Sjogren's syndrome.

L4 ANSWER 17 OF 43 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

ACCESSION NUMBER: 2000:263066 BIOSIS

DOCUMENT NUMBER: PREV200000263066

TITLE: Gefarnate stimulates goblet cell repopulation after an experimental wound to the tarsal conjunctiva in **dry eye** rabbits.

AUTHOR(S): Kim, O. (1); Toshida, H. (1); Hamano, T.; Nakata, K.;

Nakamura, M.; Nguyen, D. (1); Beuerman, R. (1)

CORPORATE SOURCE: (1) LSU Eye Center, New Orleans, LA USA

SOURCE: IOVS, (March 15, 2000) Vol. 41, No. 4, pp. S275.

print..

Meeting Info.: Annual Meeting of the Association in Vision and Ophthalmology. Fort Lauderdale, Florida, USA April 30-May 05, 2000 Association for Research in Vision and Ophthalmology

DOCUMENT TYPE: Conference

LANGUAGE: English

SUMMARY LANGUAGE: English

L4 ANSWER 14 OF 43 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

ACCESSION NUMBER: 2001:287143 BIOSIS

DOCUMENT NUMBER: PREV200100287143

TITLE: Experimentally induced **dry eye** produces ocular surface inflammation and epithelial disease.

AUTHOR(S): Dursun, D. (1); Wang, M. (1); Monroy, D. (1); Stern, M. E.;

Li, D. Q. (1); Lokeshwar, B. (1); Pflugfelder, S. C. (1)

CORPORATE SOURCE: (1) Ocular Surface and Tear Center, Bascom Palmer Eye

Institute, Miami, FL USA

SOURCE: IOVS, (March 15, 2001) Vol. 42, No. 4, pp. S31.

print.

Meeting Info.: Annual Meeting of the Association for Research in Vision and Ophthalmology Fort Lauderdale, Florida, USA April 29-May 04, 2001

DOCUMENT TYPE: Conference

LANGUAGE: English

SUMMARY LANGUAGE: English

L4 ANSWER 12 OF 43 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

ACCESSION NUMBER: 2001:78070 BIOSIS

DOCUMENT NUMBER: PREV200100078070

TITLE: Improvement of corneal barrier function by the P2Y2 agonist

INS365 in a rat **dry eye** model.

AUTHOR(S): Fujihara, Tsutomu (1); Murakami, Tadahiyo; Fujita, Hiromi;

Nakamura, Masatsugu; Nakata, Katsuhiko

CORPORATE SOURCE: (1) Nara Research and Development Center, Santen

Pharmaceutical Co., Ltd., 8916-16 Takayama-cho, Ikoma-shi,

Nara, 630-0101: fujiharat@santen.co.jp Japan

SOURCE: IOVS, (January, 2001) Vol. 42, No. 1, pp. 96-100.

print.

DOCUMENT TYPE: Article

LANGUAGE: English  
 SUMMARY LANGUAGE: English  
 AB Purpose. Because purinoceptor P2Y2 receptor agonists elicit increases in net Cl, fluid transport, and glycoprotein release onto the ocular surface, they are candidates for treatment of **dry eye syndrome**. Accordingly, the effects of such an agonist INS365 on these parameters were characterized in a rat **dry eye** model. Methods. An SD rat **dry eye** model was used in which exorbital lacrimal gland extirpation decreased the Schirmer test score by at least 50%. After 8 weeks, when significant increases occurred in corneal epithelial permeability, INS365-containing eye drops were applied six times daily for the next 4 weeks at concentrations from 0.03% to 3.0%. Corneal barrier function was evaluated based on measurements with a modified anterior fluorometer of fluorescein penetrance at 1, 2, and 4 weeks after initial application. After INS365 application, the periodic acid-Schiff reagent (PAS)-stained area was evaluated in histologic sections of the tarsal and bulbar conjunctiva. Results. Ten minutes after INS365 eye drop application at doses of either 3.0% or 8.5%, a 1.5-fold transient increase in tear fluid secretion occurred in both the control and **dry eye** model animals. These transient increases nearly returned to baseline after 60 minutes. Furthermore, after 5 minutes, 1.0% INS365 was sufficient to cause a maximal transient decrease in the PAS-stained area of more than 30%, which thereafter recovered toward the initial level. Beginning at 2 weeks and continuing for an additional 2 weeks, maximal declines in dye penetrance of approximately 50% occurred with doses of INS365 as low as 1%. Such improvement in corneal epithelial resistance was accompanied by complete restoration of the PAS-stained area to the level seen in the control animal. Conclusions. In a rat **dry eye** model, the P2Y2 agonist INS365 was found to improve surface health, based on increases in tear fluid secretion, corneal epithelial resistance, and release of glycoprotein-containing moieties from goblet cells. These effects suggest that INS365 is a potential therapeutic agent for use in the treatment of **dry eye syndrome**.

L4 ANSWER 11 OF 43 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
 ACCESSION NUMBER: 2001:287465 BIOSIS  
 DOCUMENT NUMBER: PREV200100287465  
 TITLE: Corneal protection by the ocular mucin secretagogue 15(S)-HETE in a rabbit **dry eye** model.  
 AUTHOR(S): Gamache, D. A. (1); Wei, Z.-Y. (1); Weimer, L. K. (1); Miller, S. T. (1); Spellman, J. M. (1); Yanni, J. M. (1)  
 CORPORATE SOURCE: (1) Pharmaceutical Products Research, Alcon Research, Ltd., Fort Worth, TX, 76134 USA  
 SOURCE: IOVS, (March 15, 2001) Vol. 42, No. 4, pp. S177. print.  
 Meeting Info.: Annual Meeting of the Association for Research in Vision and Ophthalmology Fort Lauderdale, Florida, USA April 29-May 04, 2001  
 DOCUMENT TYPE: Conference  
 LANGUAGE: English  
 SUMMARY LANGUAGE: English

L4 ANSWER 9 OF 43 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

ACCESSION NUMBER: 2001:321201 BIOSIS  
 DOCUMENT NUMBER: PREV200100321201  
 TITLE: A new **animal model** of **dry eyes**.  
 AUTHOR(S): Nemet, A. (1); Rosner, M. (1); Belkin, M. (1)  
 CORPORATE SOURCE: (1) Goldschleger Eye Research Institute, Tel-Aviv University, Sheba Medical Center, Tel Hashomer Israel  
 SOURCE: IOVS, (March 15, 2001) Vol. 42, No. 4, pp. S262. print.  
 Meeting Info.: Annual Meeting of the Association for Research in Vision and Ophthalmology Fort Lauderdale, Florida, USA April 29-May 04, 2001  
 DOCUMENT TYPE: Conference  
 LANGUAGE: English  
 SUMMARY LANGUAGE: English

L4 ANSWER 7 OF 43 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
 ACCESSION NUMBER: 2001:321206 BIOSIS  
 DOCUMENT NUMBER: PREV200100321206  
 TITLE: A new **dry-eye animal model** using GVH reactions.  
 AUTHOR(S): Uno, T. (1); Urashima, H. (1); Ohashi, Y. (1)  
 CORPORATE SOURCE: (1) Department of Ophthalmology, Ehime University, Matsuyama, Ehime Japan  
 SOURCE: IOVS, (March 15, 2001) Vol. 42, No. 4, pp. S263. print.  
 Meeting Info.: Annual Meeting of the Association for Research in Vision and Ophthalmology Fort Lauderdale, Florida, USA April 29-May 04, 2001  
 DOCUMENT TYPE: Conference  
 LANGUAGE: English  
 SUMMARY LANGUAGE: English

=> d his

(FILE 'HOME' ENTERED AT 10:27:45 ON 01 SEP 2002)

FILE 'MEDLINE, BIOSIS, CAPLUS' ENTERED AT 10:28:13 ON 01 SEP 2002  
 L1 4177 S DRY EYE OR XEROSIS OR HYPOLACRIMIA OR KERATOCONJUNCTIVITIS SIC  
 L2 251329 S ANIMAL MODEL  
 L3 49 S L1 AND L2  
 L4 43 DUP REM L3 (6 DUPLICATES REMOVED)

=> log hold  

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	97.79	98.00

SESSION WILL BE HELD FOR 60 MINUTES  
 STN INTERNATIONAL SESSION SUSPENDED AT 10:42:42 ON 01 SEP 2002

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1636DXS

PASSWORD:  
 \*\*\*\*\* RECONNECTED TO STN INTERNATIONAL \*\*\*\*\*  
 SESSION RESUMED IN FILE 'MEDLINE, BIOSIS, CAPLUS' AT 10:45:20 ON 01 SEP 2002  
 FILE 'MEDLINE' ENTERED AT 10:45:20 ON 01 SEP 2002  
 FILE 'BIOSIS' ENTERED AT 10:45:20 ON 01 SEP 2002  
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 FILE 'CAPLUS' ENTERED AT 10:45:20 ON 01 SEP 2002

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COST IN U.S. DOLLARS	ENTRY	SINCE FILE SESSION	TOTAL
FULL ESTIMATED COST		97.79	98.00

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(FILE 'HOME' ENTERED AT 10:27:45 ON 01 SEP 2002)

FILE 'MEDLINE, BIOSIS, CAPLUS' ENTERED AT 10:28:13 ON 01 SEP 2002

L1 4177 S DRY EYE OR XEROSIS OR HYPOLACRIMIA OR KERATOCONJUNCTIVITIS SIC  
L2 251329 S ANIMAL MODEL  
L3 49 S L1 AND L2  
L4 43 DUP REM L3 (6 DUPLICATES REMOVED)

=> s cornea? epitheli?

L5 11300 CORNEA? EPITHELI?

=> s damage

L6 631428 DAMAGE

=> s damag?

L7 708684 DAMAG?

=> s dessicat? or dry

L8 565797 DESSICAT? OR DRY

=> s l5(s)l6

L9 486 L5(S) L6

=> s l5(s)l8

L10 142 L5(S) L8

=> s l2 and l10

L11 5 L2 AND L10

=> dup rem l11

PROCESSING COMPLETED FOR L11

L12 5 DUP REM L11 (0 DUPLICATES REMOVED)

=> d ti so 1-5

L12 ANSWER 1 OF 5 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

TI Improvement of corneal barrier function by the P2Y2 agonist INS365 in a rat dry eye model.

SO IOVS, (January, 2001) Vol. 42, No. 1, pp. 96-100. print.

L12 ANSWER 2 OF 5 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

TI The study of TEM and SEM in the rabbit cornea after excimer laser photorefractive keratectomy.

SO Xi'an Yike Daxue Xuebao, (Apr., 2000) Vol. 21, No. 2, pp. 134-136. print.

ISSN: 0258-0659.

L12 ANSWER 3 OF 5 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

TI Lactoferrin suppresses loss of corneal epithelial integrity in a rabbit short-term dry eye model.

SO Journal of Ocular Pharmacology and Therapeutics, (April, 1998) Vol. 14,

No. 2, pp. 99-107.

ISSN: 1080-7683.

L12 ANSWER 4 OF 5 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

TI Gefarnate stimulates secretion of mucin-like glycoproteins by corneal

epithelium in vitro and protects corneal epithelium from desiccation

in

vivo.

SO Experimental Eye Research, (1997) Vol. 65, No. 4, pp. 569-574. ISSN: 0014-4835.

L12 ANSWER 5 OF 5 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

TI The effects of artificial tear solutions on wound healing in full thickness corneal incisions.

SO Acta Physiologica Hungarica, (1997) Vol. 85, No. 3, pp. 251-258. ISSN: 0231-424X.

=> d ibib ab 4,3

L12 ANSWER 4 OF 5 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

ACCESSION NUMBER: 1997:508567 BIOSIS

DOCUMENT NUMBER: PREV199799807770

TITLE: Gefarnate stimulates secretion of mucin-like glycoproteins

by corneal epithelium in vitro and protects corneal epithelium from desiccation in vivo.

AUTHOR(S): Nakamura, Masatsugu (1); Endo, Ken-Ichi; Nakata, Katsuhiko;

Hamano, Takashi

CORPORATE SOURCE: (1) Ophthalmic Lab., Nara Res. Dev. Cent., Santen

Pharmaceutical Co. Ltd., 8916-16 Takayama-cho, Ikoma-shi,

Nara 630-01 Japan

SOURCE: Experimental Eye Research, (1997) Vol. 65, No. 4, pp.

569-574.

ISSN: 0014-4835.

DOCUMENT TYPE: Article

LANGUAGE: English

AB The effect of drugs for gastritis and gastric ulcer (ecabet sodium, gefarnate, teprenone, and troxipide) on the secretion of mucin-like glycoproteins from rat cornea were investigated in vitro and on a short-term, rabbit dry eye model in vivo. For the studies in vitro, cultured rat cornea sections (3 mm diameter) were incubated with

radiolabeled sodium sulfate, rinsed, and then incubated for 30 min in the

presence of one of the drugs. The culture media were reacted with Dolichos

biflorus agglutinate (DBA)-lectin, and the radioactivity of DBA-bound

mucin-like glycoproteins was measured. A cytotoxicity assay confirmed that

mucin-like glycoproteins had not leaked from damaged cells. For studies in

vivo, eye drop vehicle or drops containing gefarnate were instilled in the

eyes of nine anesthetized rabbits, and then the eyes were kept open with

specula for two hours. These rabbits and two control rabbits not subjected

to ocular drying were killed, and their eyes were enucleated and stained

with methylene blue. Corneal epithelial damage from desiccation was evaluated based on the extent of methylene blue staining.

Among the four kinds of drugs for gastritis and gastric ulcers, only gefarnate significantly increased the mucin-like glycoprotein secretion

from cultured rat corneas in vitro: this stimulatory effect of gefarnate was dose-dependent. In vivo, the instillation of gefarnate reduced corneal epithelial damage from desiccation in a dose-dependent fashion. These results suggest that gefarnate reduces desiccation of corneal epithelium, perhaps by stimulating secretion of mucin-like glycoproteins from corneal epithelium.



L12 ANSWER 3 OF 5 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

ACCESSION NUMBER: 1998:261667 BIOSIS

DOCUMENT NUMBER: PREV199800261667

TITLE: Lactoferrin suppresses loss of **corneal epithelial** integrity in a rabbit short-term **dry eye** model.

AUTHOR(S): Fujihara, Tsutomu (1); Nagano, Takashi; Nakamura, Masatsugu; Shirasawa, Eiichi

CORPORATE SOURCE: (1) Santen Pharmaceutical Co., Ltd. Nara Res. Develop.

Cent., 8916-16, Takayama-cho, Ikoma-shi, Nara, 630-01

Japan

SOURCE: Journal of Ocular Pharmacology and Therapeutics, (April,

1998) Vol. 14, No. 2, pp. 99-107.

ISSN: 1080-7683.

DOCUMENT TYPE: Article

LANGUAGE: English

AB Human tear fluid contains lactoferrin at the highest concentration. In

patients with **dry eye** such as Sjogren's syndrome, the concentration of lactoferrin in the tears is approximately half the normal value. The present study utilizes a short-term rabbit **dry eye** model to evaluate if lactoferrin containing eye drops can reverse any of

the damage produced by blockage of blinking with an ocular speculum.

Damage was evaluated based on the extent of methylene blue staining in

histological sections. After 3 h of desiccation, the amount of extractable dye recovered following sacrifice increased by more than 4-fold in the vehicle-treated eyes. However, in those rabbits treated with

1% lactoferrin, dye recovery was only 40% of the value in the vehicle-treated eyes. Between 1-3 h and over a concentration range from

0.01 to 1% lactoferrin, the decreases in staining were both time and concentration dependent. Alternatively, if 1% lactoferrin was applied during the desiccation period, there was partial restoration of **corneal epithelial** integrity. These results suggest that lactoferrin may be of therapeutic value in decreasing the loss of **corneal epithelial** integrity in **dry eye**.

=> d his

(FILE 'HOME' ENTERED AT 10:27:45 ON 01 SEP 2002)

FILE 'MEDLINE, BIOSIS, CAPLUS' ENTERED AT 10:28:13 ON 01 SEP 2002

L1 4177 S DRY EYE OR XEROSIS OR HYPOLACRIMIA OR KERATOCONJUNCTIVITIS SIC

L2 251329 S ANIMAL MODEL

L3 49 S L1 AND L2

L4 43 DUP REM L3 (6 DUPLICATES REMOVED)

L5 11300 S CORNEA? EPITHELI?

L6 631428 S DAMAGE

L7 708684 S DAMAG?

L8 565797 S DESSICAT? OR DRY

L9 486 S L5(S)L6

L10 142 S L5(S)L8

L11 5 S L2 AND L10

L12 5 DUP REM L11 (0 DUPLICATES REMOVED)

=> s 15(S)I7

L13 586 L5(S) L7

=> s 113 and 18

L14 32 L13 AND L8

=> dup rem 114

PROCESSING COMPLETED FOR L14

L15 21 DUP REM L14 (11 DUPLICATES REMOVED)

=> d ti so 1-21

L15 ANSWER 1 OF 21 MEDLINE

TI Canalculitis caused by Actinomyces in a case of **dry eye** with punctal plug occlusion.

SO NIPPON GANKA GAKKAI ZASSHI. ACTA SOCIETATIS OPHTHALMOLOGICAE JAPONICAE, (2002 Jul) 106 (7) 416-9.

Journal code: 7505716. ISSN: 0029-0203.

L15 ANSWER 2 OF 21 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

TI The effect of tear film break-up on higher-order aberrations measured with wavefront sensor.

SO IOVS, (March 15, 2001) Vol. 42, No. 4, pp. S900. print.

Meeting Info.: Annual Meeting of the Association for Research in Vision and Ophthalmology Fort Lauderdale, Florida, USA April 29-May 04, 2001

L15 ANSWER 3 OF 21 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

TI A new **dry-eye** animal model using GVH reactions.

SO IOVS, (March 15, 2001) Vol. 42, No. 4, pp. S263. print.

Meeting Info.: Annual Meeting of the Association for Research in Vision and Ophthalmology Fort Lauderdale, Florida, USA April 29-May 04, 2001

L15 ANSWER 4 OF 21 MEDLINE

DUPLICATE 1

TI Bilateral neurotrophic keratopathy complicating Vidian neurectomy.

SO AMERICAN JOURNAL OF OPHTHALMOLOGY, (2001 Jul) 132 (1) 106-8.

Journal code: 0370500. ISSN: 0002-9394.

L15 ANSWER 5 OF 21 MEDLINE

TI Interactions between ocular surface fluid and cornea related to contact lenses.

SO EUROPEAN JOURNAL OF OPHTHALMOLOGY, (2001 Apr-Jun) 11 (2) 105-15. Ref: 53

Journal code: 9110772. ISSN: 1120-6721.

L15 ANSWER 6 OF 21 CAPLUS COPYRIGHT 2002 ACS

TI **Dry eye** treatment with eye drops that stimulate mucin production

SO Advances in Experimental Medicine and Biology (1998),

438(Lacrimal Gland,

Tear Film, and Dry Eye Syndromes 2), 965-968

CODEN: AEMBAP; ISSN: 0065-2598

L15 ANSWER 7 OF 21 MEDLINE

DUPLICATE 2

TI Lactoferrin suppresses loss of corneal epithelial integrity in a rabbit short-term **dry eye** model.

SO JOURNAL OF OCULAR PHARMACOLOGY AND THERAPEUTICS, (1998 Apr) 14 (2) 99-107.

Journal code: 9511091. ISSN: 1080-7683.

L15 ANSWER 8 OF 21 MEDLINE

DUPLICATE 3

TI Gefarnate stimulates secretion of mucin-like glycoproteins by corneal

epithelium in vitro and protects corneal epithelium from desiccation in vivo.

SO EXPERIMENTAL EYE RESEARCH, (1997 Oct) 65 (4) 569-74.

Journal code: 0370707. ISSN: 0014-4835.

L15 ANSWER 9 OF 21 MEDLINE

DUPLICATE 4

TI Evaluation of conjunctival epithelial damage in **dry eye**.

SO NIPPON GANKA GAKKAI ZASSHI. ACTA SOCIETATIS OPHTHALMOLOGICAE JAPONICAE,

(1997 Jan) 101 (1) 52-6.  
Journal code: 7505716. ISSN: 0029-0203.

L15 ANSWER 10 OF 21 MEDLINE DUPLICATE 5  
TI Establishment of a rabbit short-term **dry** eye model.  
SO JOURNAL OF OCULAR PHARMACOLOGY AND  
THERAPEUTICS, (1995 Winter) 11 (4)  
503-8.  
Journal code: 9511091. ISSN: 1080-7683.

L15 ANSWER 11 OF 21 BIOSIS COPYRIGHT 2002 BIOLOGICAL  
ABSTRACTS INC.  
TI Effects of preservative-free artificial tear solutions on corneal  
epithelial structure and function.  
SO Archives of Ophthalmology, (1995) Vol. 113, No. 3, pp. 371-378.  
ISSN: 0003-9950.

L15 ANSWER 12 OF 21 MEDLINE  
TI Artificial tear composition and promotion of recovery of the  
**damaged corneal epithelium**.  
SO CORNEA, (1993 Mar) 12 (2) 115-20.  
Journal code: 8216186. ISSN: 0277-3740.

L15 ANSWER 13 OF 21 BIOSIS COPYRIGHT 2002 BIOLOGICAL  
ABSTRACTS INC.DUPLICATE  
6  
TI SURFACE PROPERTIES OF NORMAL AND **DAMAGED  
CORNEAL  
EPITHELIA**.  
SO J DISPERSION SCI TECHNOL, (1992) 13 (4), 459-478.  
CODEN: JDTEDS. ISSN: 0193-2691.

L15 ANSWER 14 OF 21 MEDLINE DUPLICATE 7  
TI Histochemical changes in the rabbit cornea and plasmin activity in  
the  
tear fluid during contact lens wear. Favourable influence of protease  
inhibitors (aprotinin, PC5, elastatinal).  
SO HISTOCHEMISTRY, (1992) 97 (1) 69-76.  
Journal code: 0411300. ISSN: 0301-5564.

L15 ANSWER 15 OF 21 BIOSIS COPYRIGHT 2002 BIOLOGICAL  
ABSTRACTS INC.  
TI TOXICITY OF EYEDROPS WITH BENZALKONIUM  
CHLORIDE ASSESSMENT VIA TEAR  
LACTATE DEHYDROGENASE ACTIVITY.  
SO FOLIA OPHTHALMOL JPN, (1991) 42 (5 PART 1), 780-783.  
CODEN: NGKYA3. ISSN: 0015-5667.

L15 ANSWER 16 OF 21 MEDLINE DUPLICATE 8  
TI Quantitative evaluation of the corneal epithelial barrier: effect of  
artificial tears and preservatives.  
SO CURRENT EYE RESEARCH, (1991 Jul) 10 (7) 645-56.  
Journal code: 8104312. ISSN: 0271-3683.

L15 ANSWER 17 OF 21 BIOSIS COPYRIGHT 2002 BIOLOGICAL  
ABSTRACTS INC.  
TI **DRY** EYE FOLLOWING TOPICAL BETA-BLOCKERS.  
SO ANN OTTALMOL CLIN OCUL, (1990) 116 (10), 989-992.  
CODEN: AOCOAG. ISSN: 0003-4665.

L15 ANSWER 18 OF 21 MEDLINE DUPLICATE 9  
TI Influence of artificial tears on corneal epithelium in **dry-eye**  
syndrome.  
SO GRAEFES ARCHIVE FOR CLINICAL AND EXPERIMENTAL  
OPHTHALMOLOGY, (1989) 227  
(2) 139-41.  
Journal code: 8205248. ISSN: 0721-832X.

L15 ANSWER 19 OF 21 MEDLINE DUPLICATE 10  
TI **Dry** mass and water content in the corneal epithelium and  
superficial stroma during healing of corneal alkali wounds.  
SO EXPERIMENTAL EYE RESEARCH, (1988 May) 46 (5) 705-15.  
Journal code: 0370707. ISSN: 0014-4835.

L15 ANSWER 20 OF 21 MEDLINE  
TI Eyelid secretions and the prevention and production of disease.  
SO Eye, (1988) 2 ( Pt 2) 164-71. Ref: 66  
Journal code: 8703986. ISSN: 0950-222X.

L15 ANSWER 21 OF 21 MEDLINE  
TI [The lacrimal film, structure and stability].  
Le film lacrymal, structure et stabilite.  
SO JOURNAL FRANCAIS D OPHTALMOLOGIE, (1983) 6 (12)  
963-9.  
Journal code: 7804128. ISSN: 0181-5512.

=> d ibib ab 13,12,10,7

L15 ANSWER 13 OF 21 BIOSIS COPYRIGHT 2002 BIOLOGICAL  
ABSTRACTS INC.DUPLICATE  
6

ACCESSION NUMBER: 1992:438754 BIOSIS  
DOCUMENT NUMBER: BA94:90879  
TITLE: SURFACE PROPERTIES OF NORMAL AND  
**DAMAGED**

#### **CORNEAL EPITHELIA.**

AUTHOR(S): SHARMA A  
CORPORATE SOURCE: DEP. OF CHEMICAL ENGINEERING,  
INDIAN INSTITUTE OF TECHNOL.  
AT KANPUR, KANPUR 20816, INDIA.  
SOURCE: J DISPERSION SCI TECHNOL, (1992) 13 (4), 459-  
478.

CODEN: JDTEDS. ISSN: 0193-2691.

FILE SEGMENT: BA; OLD

LANGUAGE: English

AB Surface properties of glycoprotein strands (glycocalyx) anchored  
on a

variety of cell surface control many cell events such as cell adhesion,  
fusion, wetting, dispersion and polymer mediated flocculation. The  
apolar  
and polar surface properties of the corneal mucus, glycocalix -  
bearing

normal **corneal epithelial** cells, and **damaged**  
corneal cells were determined by contact angle goniometry on freshly  
enucleated rabbit corneas. The corneal mucus, as well as the cell  
glycocalyx, display intense electron donor or proton acceptor (basic)  
type

of monopolarity, because of which both have negative interfacial  
tensions  
against water, and both are almost as hydrophilic as water itself.

These

findings show that the mucus covering of the cornea is neither  
necessary

for the corneal wetting by tears, nor is its loss sufficient for  
explanation of the corneal nonwettability. However, **damage** and  
desiccation of the epithelial cell and associated glycocalix resulted in  
substantial loss of the polar surface properties, and in diminished  
hydrophilicity and wettability. This observation supports the  
hypothesis  
that cell **damage** and glycocalyx abnormalities may lead to  
**dry** eyes.

L15 ANSWER 12 OF 21 MEDLINE  
ACCESSION NUMBER: 93272522 MEDLINE  
DOCUMENT NUMBER: 93272522 PubMed ID: 8500317  
TITLE: Artificial tear composition and promotion of recovery of  
the **damaged corneal epithelium**

AUTHOR: Lopez Bernal D; Ubels J L  
CORPORATE SOURCE: Department of Ophthalmology, Medical  
College of Wisconsin,  
Milwaukee.

CONTRACT NUMBER: P30 EY01931 (NEI)  
SOURCE: CORNEA, (1993 Mar) 12 (2) 115-20.  
Journal code: 8216186. ISSN: 0277-3740.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 199306  
ENTRY DATE: Entered STN: 19930716  
Last Updated on STN: 19930716  
Entered Medline: 19930630

AB In severe **dry** eye syndromes the **corneal epithelium** is compromised with development of punctate erosions and increased permeability. In the present study the ability of artificial tear solutions to promote recovery of the **corneal epithelial** barrier was determined by measurement of corneal uptake of 5,6 carboxyfluorescein (CF). Corneas of anesthetized rabbits were exposed to 0.01% benzalkonium for 5 min to increase epithelial permeability. The cornea was then exposed to an artificial tear solution for 1.5 h followed by measurement of CF uptake. During exposure to three commercial isotonic, nonpreserved solutions and a solution preserved with polyquaternium-1, CF uptake decreased significantly but did not return to control. No recovery of the epithelial barrier occurred during exposure of corneas to nonpreserved hypotonic solutions. During exposure to an experimental tear solution with an electrolyte composition similar to human tears, buffered with bicarbonate, CF uptake returned to control levels. Bicarbonate is an essential component of this solution because the same formula buffered with borate or without buffer was ineffective in promoting recovery of the **damaged corneal epithelium**.

L15 ANSWER 10 OF 21 MEDLINE DUPLICATE 5  
ACCESSION NUMBER: 96153755 MEDLINE  
DOCUMENT NUMBER: 96153755 PubMed ID: 8574813  
TITLE: Establishment of a rabbit short-term **dry** eye model.  
AUTHOR: Fujihara T; Nagano T; Nakamura M; Shirasawa E  
CORPORATE SOURCE: Santen Pharmaceutical Co., Ltd., Ophthalmic Research Laboratories, Osaka, Japan.  
SOURCE: JOURNAL OF OCULAR PHARMACOLOGY AND THERAPEUTICS, (1995 Winter) 11 (4) 503-8.  
Journal code: 9511091. ISSN: 1080-7683.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 199603  
ENTRY DATE: Entered STN: 19960321  
Last Updated on STN: 19960321  
Entered Medline: 19960311

AB The **dry** eye syndrome is a chronic disease which can become a serious threat to useful vision. However, there is only a limited understanding regarding effective treatment or prevention of this disease. Establishing an effective mode of treatment requires the use of a satisfactory animal **dry** eye model. Ideally, such a model should rapidly determine the effectiveness of agents that inhibit the **damaging** effects of this syndrome. This paper presents a short-term **dry** eye model using rabbits, which combines mechanical prevention of blinking and methylene blue staining. This model is not intended to be a precise representation of the **dry** eye syndrome, since this disorder has recently become recognized to involve a primary pathological process of the corneal and conjunctival epithelium. However, by using this model, clinical signs of **dry** eye can be observed after a few hours in the form of acute desiccation. Corneal

**damage** can easily be evaluated both qualitatively by methylene blue staining scores, and quantitatively by chronic assay. Visually observed **corneal epithelial** thinning was confirmed by scanning electron microscopy (SEM) to be due to loss of epithelial integrity. Using a 3% chondroitin sulfate solution, an already proven effective agent for **dry** eye, this model effectively demonstrated an 80% inhibition in the development of methylene blue positive lesion

after a period of only 2 hours. This short term **dry** eye model is valuable in primarily screening the efficacy of potential therapeutic agents in the prevention and treatment of **dry** eye.

L15 ANSWER 7 OF 21 MEDLINE DUPLICATE 2  
ACCESSION NUMBER: 1998232247 MEDLINE  
DOCUMENT NUMBER: 98232247 PubMed ID: 9572535  
TITLE: Lactoferrin suppresses loss of corneal epithelial integrity in a rabbit short-term **dry** eye model.  
AUTHOR: Fujihara T; Nagano T; Nakamura M; Shirasawa E  
CORPORATE SOURCE: Santen Pharmaceutical Co., Ltd., Nara Research and Development Center, Japan.  
SOURCE: JOURNAL OF OCULAR PHARMACOLOGY AND THERAPEUTICS, (1998 Apr) 14 (2) 99-107.  
Journal code: 9511091. ISSN: 1080-7683.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 199806  
ENTRY DATE: Entered STN: 19980708  
Last Updated on STN: 19980708  
Entered Medline: 19980622

AB Human tear fluid contains lactoferrin at the highest concentration. In patients with **dry** eye such as Sjogren's syndrome, the concentration of lactoferrin in the tears is approximately half the normal value. The present study utilizes a short-term rabbit **dry** eye model to evaluate if lactoferrin containing eye drops can reverse any of the **damage** produced by blockage of blinking with an ocular speculum. **Damage** was evaluated based on the extent of methylene blue staining in histological sections. After 3 h of desiccation, the amount of extractable dye recovered following sacrifice increased by more than 4-fold in the vehicle-treated eyes. However, in those rabbits treated with 1% lactoferrin, dye recovery was only 40% of the value in the vehicle-treated eyes. Between 1-3 h and over a concentration range from 0.01 to 1% lactoferrin, the decreases in staining were both time and concentration dependent. Alternatively, if 1% lactoferrin was applied during the desiccation period, there was partial restoration of **corneal epithelial** integrity. These results suggest that lactoferrin may be of therapeutic value in decreasing the loss of **corneal epithelial** integrity in **dry** eye.

=> D HIS

(FILE 'HOME' ENTERED AT 10:27:45 ON 01 SEP 2002)

FILE 'MEDLINE, BIOSIS, CAPLUS' ENTERED AT 10:28:13 ON 01 SEP 2002  
L1 4177 S DRY EYE OR XEROSIS OR HYPOLACRIMIA OR KERATOCONJUNCTIVITIS SIC  
L2 251329 S ANIMAL MODEL  
L3 49 S L1 AND L2  
L4 43 DUP REM L3 (6 DUPLICATES REMOVED)  
L5 11300 S CORNEA? EPITHELI?  
L6 631428 S DAMAGE  
L7 708684 S DAMAGE?

L8 565797 S DESSICAT? OR DRY  
L9 486 S L5(S)L6  
L10 142 S L5(S)L8  
L11 5 S L2 AND L10  
L12 5 DUP REM L11 (0 DUPLICATES REMOVED)  
L13 586 S L5(S)L7  
L14 32 S L13 AND L8  
L15 21 DUP REM L14 (11 DUPLICATES REMOVED)

=> OSMOT? OR OSMOS?  
OSMOT? IS NOT A RECOGNIZED COMMAND  
The previous command name entered was not recognized by the system.  
For a list of commands available to you in the current file, enter  
"HELP COMMANDS" at an arrow prompt (=>).

=> S OSMOT? OR OSMOS?  
L16 130776 OSMOT? OR OSMOS?

=> S L9 AND L16  
L17 14 L9 AND L16

=> DUP REM L17  
PROCESSING COMPLETED FOR L17  
L18 9 DUP REM L17 (5 DUPLICATES REMOVED)

=> D TI SO 1-9

L18 ANSWER 1 OF 9 BIOSIS COPYRIGHT 2002 BIOLOGICAL  
ABSTRACTS INC.DUPLICATE 1  
TI Aqueous humour and crystalline lens changes associated with  
ultraviolet  
radiation or mechanical **damage to corneal  
epithelium** in freshwater rainbow trout eyes.  
SO Journal of Photochemistry and Photobiology B Biology, (Nov.,  
1997) Vol.  
41, No. 1-2, pp. 165-172.  
ISSN: 1011-1344.

L18 ANSWER 2 OF 9 BIOSIS COPYRIGHT 2002 BIOLOGICAL  
ABSTRACTS INC.  
TI DIFFERENTIAL EFFECT OF PH ON THE **OSMOTIC  
TOLERANCE OF RABBIT  
CORNEAL EPITHELIUM IN TISSUE CULTURE.**  
SO J TOXICOL CUTANEOUS OCUL TOXICOL, (1991) 10 (1-2),  
79-94.  
CODEN: JTOTDO. ISSN: 0731-3829.

L18 ANSWER 3 OF 9 BIOSIS COPYRIGHT 2002 BIOLOGICAL  
ABSTRACTS INC.  
TI **OSMOTIC TOLERANCE OF RABBIT CORNEAL  
EPITHELIUM IN TISSUE  
CULTURE.**  
SO J TOXICOL CUTANEOUS OCUL TOXICOL, (1991) 10 (1-2),  
59-78.  
CODEN: JTOTDO. ISSN: 0731-3829.

L18 ANSWER 4 OF 9 BIOSIS COPYRIGHT 2002 BIOLOGICAL  
ABSTRACTS INC.  
TI ACUTE AND PROTRACTED **DAMAGE TO THE CORNEAL  
EPITHELIUM IN-VITRO IS A INDICATION OF  
BIOCOMPATIBILITY OF  
PHARMACEUTICAL VEHICLES.**  
SO ANNUAL SPRING MEETING OF THE ASSOCIATION FOR  
RESEARCH IN VISION AND  
OPHTHALMOLOGY, SARASOTA, FLORIDA, USA, MAY 1-6,  
1988. INVEST OPHTHALMOL  
VISUAL SCI. (1988) 29 (ABSTR ISSUE), 193.  
CODEN: IOVSDA. ISSN: 0146-0404.

L18 ANSWER 5 OF 9 MEDLINE  
TI Corneal endothelial changes in superficial epithelial keratopathy.  
SO AUSTRALIAN AND NEW ZEALAND JOURNAL OF  
OPHTHALMOLOGY, (1986 May) 14 (2)  
171-5.

Journal code: 8505423. ISSN: 0814-9763.

L18 ANSWER 6 OF 9 MEDLINE DUPLICATE 2  
TI Corneal epithelial changes in diabetic rats.  
SO OPTHALMIC RESEARCH, (1982) 14 (4) 269-78.  
Journal code: 0267442. ISSN: 0030-3747.

L18 ANSWER 7 OF 9 BIOSIS COPYRIGHT 2002 BIOLOGICAL  
ABSTRACTS INC.  
TI CORNEAL EPITHELIUM IN DIABETES.  
SO ACTA SOC OPHTHALMOL JPN, (1981) 85 (9), 1216-1225.  
CODEN: NGZAA6. ISSN: 0029-0203.

L18 ANSWER 8 OF 9 MEDLINE DUPLICATE 3  
TI Diabetes mellitus and the rabbit corneal epithelium.  
SO INVESTIGATIVE OPHTHALMOLOGY AND VISUAL  
SCIENCE, (1981 Aug) 21 (2) 317-21.  
Journal code: 7703701. ISSN: 0146-0404.

L18 ANSWER 9 OF 9 MEDLINE DUPLICATE 4  
TI Factors related to corneal epithelial complications after closed  
vitrectomy in diabetics.  
SO ARCHIVES OF OPHTHALMOLOGY, (1979 Jun) 97 (6) 1076-8.  
Journal code: 7706534. ISSN: 0003-9950.

=> D HIS

(FILE 'HOME' ENTERED AT 10:27:45 ON 01 SEP 2002)

FILE 'MEDLINE, BIOSIS, CAPLUS' ENTERED AT 10:28:13 ON  
01 SEP 2002

L1 4177 S DRY EYE OR XEROSIS OR HYPOLACRIMIA OR  
KERATOCONJUNCTIVITIS SIC  
L2 251329 S ANIMAL MODEL  
L3 49 S L1 AND L2  
L4 43 DUP REM L3 (6 DUPLICATES REMOVED)  
L5 11300 S CORNEA? EPITHELI?  
L6 631428 S DAMAGE  
L7 708684 S DAMAG?  
L8 565797 S DESSICAT? OR DRY  
L9 486 S L5(S)L6  
L10 142 S L5(S)L8  
L11 5 S L2 AND L10  
L12 5 DUP REM L11 (0 DUPLICATES REMOVED)  
L13 586 S L5(S)L7  
L14 32 S L13 AND L8  
L15 21 DUP REM L14 (11 DUPLICATES REMOVED)  
L16 130776 S OSMOT? OR OSMOS?  
L17 14 S L9 AND L16  
L18 9 DUP REM L17 (5 DUPLICATES REMOVED)

=> LOG HOLD  
COST IN U.S. DOLLARS SINCE FILE TOTAL  
ENTRY SESSION  
FULL ESTIMATED COST 163.15 163.36

SESSION WILL BE HELD FOR 60 MINUTES  
STN INTERNATIONAL SESSION SUSPENDED AT 11:04:19 ON 01  
SEP 2002

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1636DXS

PASSWORD:  
\*\*\*\*\* RECONNECTED TO STN INTERNATIONAL \*\*\*\*\*  
SESSION RESUMED IN FILE 'MEDLINE, BIOSIS, CAPLUS' AT  
11:09:48 ON 01 SEP 2002  
FILE 'MEDLINE' ENTERED AT 11:09:48 ON 01 SEP 2002

FILE 'BIOSIS' ENTERED AT 11:09:48 ON 01 SEP 2002  
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FILE 'CAPLUS' ENTERED AT 11:09:48 ON 01 SEP 2002  
COPYRIGHT (C) 2002 AMERICAN CHEMICAL SOCIETY (ACS)

COST IN U.S. DOLLARS	SINCE FILE ENTRY	SESSION	TOTAL
FULL ESTIMATED COST	163.15		163.36

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(FILE 'HOME' ENTERED AT 10:27:45 ON 01 SEP 2002)

FILE 'MEDLINE, BIOSIS, CAPLUS' ENTERED AT 10:28:13 ON 01 SEP 2002

L1 4177 S DRY EYE OR XEROSIS OR HYPOLACRIMIA OR KERATOCONJUNCTIVITIS SIC  
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L9 486 S L5(S)L6  
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L11 5 S L2 AND L10  
L12 5 DUP REM L11 (0 DUPLICATES REMOVED)  
L13 586 S L5(S)L7  
L14 32 S L13 AND L8  
L15 21 DUP REM L14 (11 DUPLICATES REMOVED)  
L16 130776 S OSMOT? OR OSMOS?  
L17 14 S L9 AND L16  
L18 9 DUP REM L17 (5 DUPLICATES REMOVED)

=> S HYPERTONIC

L19 29959 HYPERTONIC

=> S L1 AND L19

L20 8 L1 AND L19

=> DUP REM L20

PROCESSING COMPLETED FOR L20

L21 6 DUP REM L20 (2 DUPLICATES REMOVED)

=> D TI SO 1-6

L21 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2002 ACS  
TI Adaptation by corneal epithelial cells to chronic **hypertonic** stress depends on upregulation of Na:K:2Cl cotransporter gene and protein expression and ion transport activity  
SO Journal of Membrane Biology (2000), 177(1), 41-50  
CODEN: JMBBBO; ISSN: 0022-2631

L21 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2002 ACS  
TI Effects of chronic **hypertonic** stress on regulatory volume increase and Na-K-2Cl cotransporter expression in cultured corneal epithelial cells  
SO Advances in Experimental Medicine and Biology (1998), 438(Lacrimal Gland, Tear Film, and Dry Eye Syndromes 2), 637-642  
CODEN: AEMBAP; ISSN: 0065-2598

L21 ANSWER 3 OF 6 MEDLINE DUPLICATE 1  
TI Human basic tear fluid osmolality. II. Importance of processing strategy.  
SO ACTA OPHTHALMOLOGICA, (1993 Aug) 71 (4) 530-8.  
Journal code: 0370347. ISSN: 0001-639X.

L21 ANSWER 4 OF 6 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
TI THE EFFECTS OF **HYPERTONIC** SOLUTIONS ON ULTRASTRUCTURAL CHANGES

OF SUPERFICIAL CONJUNCTIVAL EPITHELIUM IN RABBITS.

SO J CATHOL MED COLL, (1992) 45 (2), 609-621.  
CODEN: KTUNAA. ISSN: 0368-7015.

L21 ANSWER 5 OF 6 MEDLINE DUPLICATE 2  
TI Tear osmotic differences across the ocular surface.  
SO GRAEFES ARCHIVE FOR CLINICAL AND EXPERIMENTAL OPHTHALMOLOGY, (1986) 224 (6) 583-6.  
Journal code: 8205248. ISSN: 0721-832X.

L21 ANSWER 6 OF 6 MEDLINE  
TI New aspects of contact lenses in ophthalmology.  
SO ADVANCES IN OPHTHALMOLOGY, (1976) 32 2-34.  
Journal code: 0263212. ISSN: 0065-3004.

=> D IBIB AB 1, 4

L21 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2002 ACS  
ACCESSION NUMBER: 2000:647856 CAPLUS  
DOCUMENT NUMBER: 133:361170  
TITLE: Adaptation by corneal epithelial cells to chronic **hypertonic** stress depends on upregulation of Na:K:2Cl cotransporter gene and protein expression and ion transport activity  
AUTHOR(S): Bildin, V. N.; Yang, H.; Crook, R. B.; Fischbarg, J.; Reinach, P. S.  
CORPORATE SOURCE: Department of Biological Sciences, College of Optometry, State University of New York, New York, NY, 10010, USA  
SOURCE: Journal of Membrane Biology (2000), 177(1), 41-50  
CODEN: JMBBBO; ISSN: 0022-2631  
PUBLISHER: Springer-Verlag New York Inc.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB We examd. the ability of SV40-immortalized human and rabbit corneal epithelial cells (HCEC and RCEC, resp.) to adapt to chronic **hypertonic** stress. Under isotonic conditions in the presence of 50 .mu.M bumetanide, proliferation measured as 3H-thymidine incorporation declined in RCEC and HCEC by 8 and 35%, resp. After 48 h exposure to 375 mOsm medium, RCEC proliferation fell by 19% whereas in HCEC it declined by 45%. Light scattering behavior demonstrated that both cell lines mediate nearly complete regulatory vol. increase (RVI) responses to an acute **hypertonic** (375 mOsm) challenge, which in part depend on bumetanide-sensitive Na-K-2Cl cotransporter (NKCC) activity. Following RCEC exposure for 48 h to 375 mOsm medium, the RVI response to an acute **hypertonic** challenge was inhibited by 17%. However, in HCEC this response declined by 68%. During exposure to 375 mOsm medium for up to 24 h, only RCEC upregulated NKCC gene and protein expression as well as bumetanide-sensitive 86Rb influx. These increases are consistent with the smaller declines in RVI and proliferation capacity which occur during this period in RCEC compared to HCEC. Therefore, adaptation by RCEC to chronic **hypertonic** stress is dependent on stimulation of NKCC gene and protein expression and functional activity. On the other hand, under isotonic conditions, HCEC RVI and proliferation are more dependent on NKCC

activity than they are in RCEC.  
REFERENCE COUNT: 24 THERE ARE 24 CITED  
REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE  
RE FORMAT

L21 ANSWER 4 OF 6 BIOSIS COPYRIGHT 2002 BIOLOGICAL  
ABSTRACTS INC.  
ACCESSION NUMBER: 1992:507957 BIOSIS  
DOCUMENT NUMBER: BA94:126482  
TITLE: THE EFFECTS OF HYPERTONIC SOLUTIONS ON  
ULTRASTRUCTURAL CHANGES OF SUPERFICIAL  
CONJUNCTIVAL

EPITHELIUM IN RABBITS.  
AUTHOR(S): KIM J K; RHEE S W  
CORPORATE SOURCE: DEP. OPHTHALMOLOGY, CATHOLIC  
UNIV. MED. COLL., SEOUL,  
KOREA.

SOURCE: J CATHOL MED COLL, (1992) 45 (2), 609-621.  
CODEN: KTUNAA. ISSN: 0368-7015.

FILE SEGMENT: BA; OLD

LANGUAGE: Korean

AB It is well known that aside from goblet cells and the lacrimal gland  
there

is a third source of mucus secretion on to the surface of the  
conjunctiva.

Deducing from transmission electron microscopy the superficial cells  
of

the epithelium make a mucoprotein with long chemical chains and  
package it

in the subsurface vesicles. This content is a particular mucoprotein,  
the

glycocalyx which participates in the elaboration of the cell coat and  
might be serving as an intermediary on the fixation of overlying  
mucus to

the epithelial surface. The epithelial surface is probably the most  
potent

force on maintaining the stability of the tear film and it is here that  
the adhesive forces must act. Epithelial cell integrity is essential for  
the stability of the tear film especially in dry eyes.

Elevated tear film osmolality is a final common pathway for the  
development of many types of "dry eyes". Tear film  
osmolality may increase due to decreased tear secretion and/or  
increased

tear film evaporation. The aim of this study is to evaluate the  
morphologic effect of hyperosmolality, equivalent to that seen on  
keratoconjunctivitis on conjunctival surface epithelium of rabbits.

Hypertonic solutions were prepared by a commercially available  
balanced salt solution (BSS, Alcon), and adjusted to desired final  
concentrations of 300, 330, and 360 m Osm/l. New Zealand white  
rabbits

weighing 2-3 kg were anesthetized, and a conjunctival well which  
was made

by elevating the lids and nictitating membrane, was filled with 1 ml  
of

the test solution. The conjunctival sac was submerged in a bathing  
solution that was exchanged for same fresh solution every hours for 3  
to 6

hours. In twelve experimental trials, BSS concentrated to 330, 360 m  
Osm/l

was used to bathe the ocular surface for 3 and 6 hour periods,  
respectively. The contralateral twelve eyes bathed in isotonic BSS  
served

as control. Immediately after conjunctival bathing, biopsy samples  
were

taken from inferonasal bulbar conjunctiva. The biopsy samples were  
stained with ruthenium red stock solution contrasted with uranyl

acetate

and lead citrate, and the experimental specimens and their controls  
were

examined in a transmission electron microscope (Joel 1200 EX,  
Japan). And

the results were analyzed by an image analysis system (Kontron,  
West

Germany). The results were as follows: 1) After 3 hours of bathing in  
330

m Osm/l solution, the subsurface vesicles were observed in clusters  
and

increased in number compared to the control group. After 6 hours of  
bathing in 330 m Osm/l solution, the vesicles increased in number  
compared

to the 3 hour group. 2) After 3 hours of bathing in 360 m Osm/l  
solution,

the vesicles were morphologically enlarged and increased in number  
compared to the control group. After 6 hours of bathing in 360 m

Osm/l  
solution, the vesicles were not morphologically changed compared to  
the

330 m Osm/l group. 3) By an image analysis system, after 3 hours of  
bathing in 360 m Osm/l solution, the vesicles significantly increased  
by

three times in total volume compared to the control group (P (0.05).  
After

6 hours of bathing in 330 m Osm/l solution, the vesicles significantly  
increased in total volume by about two times compared to the 3 hour  
group

(P (0.05). 4) In experimental specimens, the conjunctival epithelial  
cells

had widened intercellular spaces and intracellular edema, manifested  
by

decreased cytoplasmic density, and the microvilli towards the pre-  
ocular

tear film did not appear to be reduced by increasing osmolality,  
although

their shape were irregular. The above findings suggest that subsurface  
vesicles increase early in number and total volume in the

hyperosmolar

state, at a later time the altered subsurface vesicles by the  
hyperosmolality will induce the alteration of mucus content. And the  
conjunctival epithelium would lose the capacity to synthesize

glycocalyx

and lack the specific sites of fixation for these mucoproteins.

=> D HIS

(FILE 'HOME' ENTERED AT 10:27:45 ON 01 SEP 2002)

FILE 'MEDLINE, BIOSIS, CAPLUS' ENTERED AT 10:28:13 ON  
01 SEP 2002

L1 4177 S DRY EYE OR XEROSIS OR HYPOLACRIMIA OR  
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L2 251329 S ANIMAL MODEL

L3 49 S L1 AND L2

L4 43 DUP REM L3 (6 DUPLICATES REMOVED)

L5 11300 S CORNEA? EPITHELI?

L6 631428 S DAMAGE

L7 708684 S DAMAG?

L8 565797 S DESSICAT? OR DRY

L9 486 S L5(S)L6

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L11 5 S L2 AND L10

L12 5 DUP REM L11 (0 DUPLICATES REMOVED)

L13 586 S L5(S)L7

L14 32 S L13 AND L8

L15 21 DUP REM L14 (11 DUPLICATES REMOVED)

L16 130776 S OSMOT? OR OSMOS?

L17 14 S L9 AND L16

L18 9 DUP REM L17 (5 DUPLICATES REMOVED)

L19 29959 S HYPERTONIC

L20 8 S L1 AND L19

L21 6 DUP REM L20 (2 DUPLICATES REMOVED)

=> S HYPERTONIC OR HYPEROSMO?

L22 40993 HYPERTONIC OR HYPEROSMO?

=> S L22 AND L5

L23 40 L22 AND L5

=> DUP REM L23  
PROCESSING COMPLETED FOR L23  
L24 31 DUP REM L23 (9 DUPLICATES REMOVED)

=> D TI SO 1-31

L24 ANSWER 1 OF 31 MEDLINE

TI Osmosensitive taurine transporter expression and activity in human **corneal epithelial** cells.

SO INVESTIGATIVE OPHTHALMOLOGY AND VISUAL SCIENCE, (2002 Sep) 43 (9) 2916-22.

Journal code: 7703701. ISSN: 0146-0404.

L24 ANSWER 2 OF 31 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

TI Osmosensitive taurine transporter expression and uptake by human **corneal epithelial** cells.

SO IOVS, (March 15, 2001) Vol. 42, No. 4, pp. S588. print.

Meeting Info.: Annual Meeting of the Association for Research in Vision and Ophthalmology Fort Lauderdale, Florida, USA April 29-May 04, 2001

L24 ANSWER 3 OF 31 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

TI Possible involvement of MAPKs in direct activation of Na:K:2Cl cotransporter hypertonicity-stressed rabbit and human **corneal epithelial** cells.

SO IOVS, (March 15, 2001) Vol. 42, No. 4, pp. S499. print.

Meeting Info.: Annual Meeting of the Association for Research in Vision and Ophthalmology Fort Lauderdale, Florida, USA April 29-May 04, 2001

L24 ANSWER 4 OF 31 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

TI MAPK involvement in recovery of paracellular resistance during exposure to

a **hypertonic** challenge in cultured rabbit and human **corneal epithelial** layers.

SO IOVS, (March 15, 2000) Vol. 41, No. 4, pp. S903. print..

Meeting Info.: Annual Meeting of the Association in Vision and Ophthalmology. Fort Lauderdale, Florida, USA April 30-May 05, 2000

Association for Research in Vision and Ophthalmology

L24 ANSWER 5 OF 31 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

TI **Hypertonic** stress-induced activation of MAPK and apoptosis in SV40-transformed human and rabbit **corneal epithelial** cells.

SO IOVS, (March 15, 2000) Vol. 41, No. 4, pp. S902. print..

Meeting Info.: Annual Meeting of the Association in Vision and Ophthalmology. Fort Lauderdale, Florida, USA April 30-May 05, 2000

Association for Research in Vision and Ophthalmology

L24 ANSWER 6 OF 31 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

TI Effects of **hyperosmolarity** on bovine **corneal epithelium** cell culture. Advantages and disadvantages of using artificial tears.

SO IOVS, (March 15, 2000) Vol. 41, No. 4, pp. S67.

Meeting Info.: Annual Meeting of the Association for Research in Vision and Ophthalmology. Fort Lauderdale, Florida, USA April 30-May 05, 2000

Association for Research in Vision and Ophthalmology

L24 ANSWER 7 OF 31 MEDLINE

DUPLICATE 1

TI Adaptation by **corneal epithelial** cells to chronic **hypertonic** stress depends on upregulation of Na:K:2Cl cotransporter gene and protein expression and ion transport activity.  
SO JOURNAL OF MEMBRANE BIOLOGY, (2000 Sep 1) 177 (1) 41-50.

Journal code: 0211301. ISSN: 0022-2631.

L24 ANSWER 8 OF 31 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

TI **Corneal epithelial** cell adaptation to chronic **hypertonic** stress is associated with upregulation of Na-K-2Cl expression and activity.

SO FASEB Journal, (March 12, 1999) Vol. 13, No. 4 PART 1, pp. A394.

Meeting Info.: Annual Meeting of the Professional Research Scientists for

Experimental Biology 99 Washington, D.C., USA April 17-21, 1999  
ISSN: 0892-6638.

L24 ANSWER 9 OF 31 MEDLINE

TI [Measurement of adhesion of the corneal lamella to the stroma in the early

postoperative period after microkeratotomy].

Mereni adheze rohovkove lamely ke stromatu po rezu mikrokeratomem v casne pooperacni fazi.

SO CESKA A SLOVENSKA OFTALMOLOGIE, (1999 Nov) 55 (6) 367-71.

Journal code: 9600515. ISSN: 1211-9059.

L24 ANSWER 10 OF 31 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

TI **Corneal epithelial** cell adaptation to chronic **hypertonic** stress is associated with increase of Na-K-2Cl cotransporter expression and activity.

SO IOVS, (March 15, 1999) Vol. 40, No. 4, pp. S182.

Meeting Info.: Annual Meeting of the Association for Research in Vision and Ophthalmology Fort Lauderdale, Florida, USA May 9-14, 1999  
Association for Research in Vision and Ophthalmology

L24 ANSWER 11 OF 31 MEDLINE DUPLICATE 2

TI Effects of chronic **hypertonic** stress on regulatory volume increase and Na-K-2Cl cotransporter expression in cultured **corneal epithelial** cells.

SO ADVANCES IN EXPERIMENTAL MEDICINE AND BIOLOGY, (1998) 438 637-42.

Journal code: 0121103. ISSN: 0065-2598.

L24 ANSWER 12 OF 31 MEDLINE DUPLICATE 3

TI Reduction of water permeability by anisotonic solutions in frog **corneal epithelium**.

SO INVESTIGATIVE OPHTHALMOLOGY AND VISUAL SCIENCE, (1998 Feb) 39 (2) 378-84.

Journal code: 7703701. ISSN: 0146-0404.

L24 ANSWER 13 OF 31 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

TI Measurement of changes in cell volume based on fluorescence quenching.

SO American Journal of Physiology, (1997) Vol. 272, No. 4 PART 1, pp.

C1405-C1414.

ISSN: 0002-9513.

L24 ANSWER 14 OF 31 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

TI Effects of chronic **hyperosmotic** stress on regulatory volume recovery in cultured human and rabbit **corneal epithelial** cells.

SO Investigative Ophthalmology & Visual Science, (1997) Vol. 38, No. 4 PART

1-2, pp. S1039.  
 Meeting Info.: Annual Meeting of the Association for Research in Vision and Ophthalmology, Parts 1-2 Fort Lauderdale, Florida, USA May 11-16, 1997  
 ISSN: 0146-0404.

L24 ANSWER 15 OF 31 MEDLINE  
 TI Sequential staining: the effects of sodium fluorescein, osmolarity, and pH on human **corneal epithelium**.  
 SO OPTOMETRY AND VISION SCIENCE, (1997 Apr) 74 (4) 207-10.  
 Journal code: 8904931. ISSN: 1040-5488.

L24 ANSWER 16 OF 31 MEDLINE  
 TI The effect of osmolality on the shedding rate of the **corneal epithelium**.  
 SO CORNEA, (1996 May) 15 (3) 240-4.  
 Journal code: 8216186. ISSN: 0277-3740.

L24 ANSWER 17 OF 31 MEDLINE DUPLICATE 4  
 TI Evaluation of the effects of saline versus bicarbonate-containing mixed salts solutions on rabbit **corneal epithelium** in vitro.  
 SO OPHTHALMIC AND PHYSIOLOGICAL OPTICS, (1995 Nov) 15 (6) 585-99.  
 Journal code: 8208839. ISSN: 0275-5408.

L24 ANSWER 18 OF 31 MEDLINE  
 TI Biomechanical behavior of the cornea and its response to radial keratotomy.  
 SO JOURNAL OF REFRACTIVE AND CORNEAL SURGERY, (1994 May-Jun) 10 (3) 343-51; discussion 351-6.  
 Journal code: 9431306. ISSN: 1081-0803.

L24 ANSWER 19 OF 31 MEDLINE  
 TI A Na:H exchanger subtype mediates volume regulation in bovine **corneal epithelial** cells.  
 SO ADVANCES IN EXPERIMENTAL MEDICINE AND BIOLOGY, (1994) 350 105-10.  
 Journal code: 0121103. ISSN: 0065-2598.

L24 ANSWER 20 OF 31 MEDLINE DUPLICATE 5  
 TI Effect of volume changes on a potassium current in rabbit **corneal epithelial** cells.  
 SO AMERICAN JOURNAL OF PHYSIOLOGY, (1993 May) 264 (5 Pt 1) C1238-45.  
 Journal code: 0370511. ISSN: 0002-9513.

L24 ANSWER 21 OF 31 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
 TI TOPICAL **HYPEROSMOLAR** SOLUTIONS IN THE REDUCTION OF CORNEAL EDEMA.  
 SO CLAO (CONTACT LENS ASSOC OPHTHALMOL) J, (1987) 13 (3), 149-151.  
 CODEN: CLAJEU. ISSN: 0733-8902.

L24 ANSWER 22 OF 31 CAPLUS COPYRIGHT 2002 ACS  
 TI The effect of different solutions of glycerin on corneal thickness and cell morphology studied by specular microscopy and scanning electron microscopy  
 SO Ital. J. Ophthalmol. (1987), 1(2), 67-77  
 CODEN: ITJOE8

L24 ANSWER 23 OF 31 CAPLUS COPYRIGHT 2002 ACS  
 TI Contact lens-induced edema in vitro - amelioration by lactate dehydrogenase inhibitors  
 SO Curr. Eye Res. (1986), 5(10), 751-8  
 CODEN: CEYRDM; ISSN: 0271-3683

L24 ANSWER 24 OF 31 MEDLINE  
 TI [Vitrectomy: measures for the prevention of intraoperative complications].  
 Vitrektomie: Massnahmen zur Vermeidung intraoperativer Komplikationen.  
 SO KLINISCHE MONATSBLATTER FUR AUGENHEILKUNDE, (1986 Apr) 188 (4) 322-4.  
 Journal code: 0014133. ISSN: 0023-2165.

L24 ANSWER 25 OF 31 MEDLINE DUPLICATE 6  
 TI A comparison of therapeutic bandage lenses, tarsorrhaphy, and antibiotic and **hypertonic** saline on **corneal epithelial** wound healing.  
 SO ANNALS OF OPHTHALMOLOGY, (1986 Jan) 18 (1) 22-4.  
 Journal code: 0210137. ISSN: 0003-4886.

L24 ANSWER 26 OF 31 MEDLINE DUPLICATE 7  
 TI Role of aldose reductase in the development of diabetes-associated complications.  
 SO AMERICAN JOURNAL OF MEDICINE, (1985 Nov 15) 79 (5A) 8-12.  
 Journal code: 0267200. ISSN: 0002-9343.

L24 ANSWER 27 OF 31 MEDLINE  
 TI Morphologic effect of **hyperosmolarity** on rabbit **corneal epithelium**.  
 SO OPHTHALMOLOGY, (1984 Oct) 91 (10) 1205-12.  
 Journal code: 7802443. ISSN: 0161-6420.

L24 ANSWER 28 OF 31 CAPLUS COPYRIGHT 2002 ACS  
 TI A model of epithelial water transport. The corneal endothelium  
 SO Biophys. J. (1981), 35(2), 315-38  
 CODEN: BIOJAU; ISSN: 0006-3495

L24 ANSWER 29 OF 31 CAPLUS COPYRIGHT 2002 ACS  
 TI Corneal pigment deposits from topically administered epinephrine. Experimental production  
 SO Arch. Ophthalmol. (1969), 82(6), 836-9  
 CODEN: AROPAW

L24 ANSWER 30 OF 31 MEDLINE  
 TI Anatomic study of water movement through rabbit **corneal epithelium**.  
 SO AMERICAN JOURNAL OF OPHTHALMOLOGY, (1969 Jan) 67 (1) 110-6.  
 Journal code: 0370500. ISSN: 0002-9394.

L24 ANSWER 31 OF 31 MEDLINE  
 TI The permeability of the **corneal epithelium** and endothelium to water.  
 SO EXPERIMENTAL EYE RESEARCH, (1967 Jan) 6 (1) 10-32.  
 Journal code: 0370707. ISSN: 0014-4835.

=> D IBIB AB 27,25,22,21,16,15,2

L24 ANSWER 27 OF 31 MEDLINE  
 ACCESSION NUMBER: 85087229 MEDLINE  
 DOCUMENT NUMBER: 85087229 PubMed ID: 6514286  
 TITLE: Morphologic effect of **hyperosmolarity** on rabbit **corneal epithelium**.  
 AUTHOR: Gilbard J P; Carter J B; Sang D N; Refojo M F; Hanninen L  
 A; Kenyon K R  
 CONTRACT NUMBER: EY00327 (NEI)  
 EY03373 (NEI)  
 SOURCE: OPHTHALMOLOGY, (1984 Oct) 91 (10) 1205-12.  
 Journal code: 7802443. ISSN: 0161-6420.  
 PUB. COUNTRY: United States  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 198502



ENTRY DATE: Entered STN: 19900320

Last Updated on STN: 19970203

Entered Medline: 19850219

AB The morphologic effect of **hyperosmolarity**, equivalent to that seen in the tear film of patients with keratoconjunctivitis sicca (KCS), on rabbit **corneal epithelium** in vitro and in vivo was studied. In the in vitro studies, **corneal epithelium** was grown in explant cultures. Control tissue was cultured in a 307 mOsm/L

medium. Epithelium cultured in the 333, 361 and 363 mOsm/L media showed

decreased intercellular connections, blunting and loss of microvilli, disruptions in cell membranes and cellular swelling with decreased cytoplasmic density. In in vivo studies, corneas bathed in balanced salt

solutions (BSS) concentrated to 330, 360, or 407 mOsm/L showed increased

cell desquamation, and the cell changes observed at similar osmolarities

in the in vitro studies. The tear film osmolarities observed in KCS are sufficient to cause the **corneal epithelial** changes seen in patients with this disease.

L24 ANSWER 25 OF 31 MEDLINE DUPLICATE 6

ACCESSION NUMBER: 86157304 MEDLINE

DOCUMENT NUMBER: 86157304 PubMed ID: 3954296

TITLE: A comparison of therapeutic bandage lenses, tarsorrhaphy,

and antibiotic and **hypertonic** saline on **corneal epithelial** wound healing.

AUTHOR: Ali Z; Insler M S

SOURCE: ANNALS OF OPHTHALMOLOGY, (1986 Jan) 18 (1) 22-4.

Journal code: 0210137. ISSN: 0003-4886.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 198604

ENTRY DATE: Entered STN: 19900321

Last Updated on STN: 19900321

Entered Medline: 19860403

AB Bandage lenses, a complete tarsorrhaphy, chloramphenicol 0.5%, and sodium

chloride 2% were tested for their effect on **corneal**

**epithelial** wound healing in rabbits. The healing rate was

decreased with bandage lenses and increased by tarsorrhaphy. There

was no

significant effect on healing rate with either chloramphenicol or **hypertonic** saline.

L24 ANSWER 22 OF 31 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1988:448412 CAPLUS

DOCUMENT NUMBER: 109:48412

TITLE: The effect of different solutions of glycerin on corneal thickness and cell morphology studied by specular microscopy and scanning electron microscopy

AUTHOR(S): Cerulli, Luciano; Corsi, A.; Pocobelli, A.; Ricci, F.;

Caggiati, A.

CORPORATE SOURCE: Dep. Exp. Med., Univ. "G. D'Annunzio", Rome, Italy

SOURCE: Ital. J. Ophthalmol. (1987), 1(2), 67-77

CODEN: ITJOE8

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The effect of the topical administration of different **hyperosmolar** solns. of glycerin on rabbit's eyes was detd.; a substantial redn. in corneal thickness with was obsd. with 15% and 30% glycerin. A biphasic

effect on corneal thickness was recorded using more concd. glycerin eyedrops. In these cases, a short period of corneal thinning was followed

by a longer phase of corneal swelling. Recovery to basic values

occurred

within 3-4 h. Specular microscopy and SEM revealed that high concns. of

glycerin induced "blebs" on the cell surface and cell membrane ruptures.

Measurements of **corneal epithelial** thickness suggested

that the topical administration of the weaker solns. is ineffective in dehydrating corneal stroma; moreover the proven cytotoxicity of the stronger solns. contraindicates their clin. use.

L24 ANSWER 21 OF 31 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

ACCESSION NUMBER: 1987:320163 BIOSIS

DOCUMENT NUMBER: BA84:39670

TITLE: TOPICAL **HYPEROSMOLAR** SOLUTIONS IN THE REDUCTION

OF CORNEAL EDEMA.

AUTHOR(S): INSLEER M S; BENEFIELD D W; ROSS E V

CORPORATE SOURCE: LSU EYE CENT., 2020 GRAVIER ST., NEW ORLEANS, LA. 70112.

SOURCE: CLAO (CONTACT LENS ASSOC OPHTHALMOL) J, (1987) 13 (3), 149-151.

CODEN: CLAJEU. ISSN: 0733-8902.

FILE SEGMENT: BA; OLD

LANGUAGE: English

AB When the **corneal epithelium** and endothelium are stressed to their physiologic limits, due to mechanical or other stressors, the cornea swells from its normal state of 78% hydration.

To

assess the effect **hypertonic** agents might have in moving water out of the cornea and thereby decreasing corneal thickness, we

compared

the effects of 2% and 5% (680 and 1720 mosm/L) sodium chloride drops on

rabbit eyes. Treatment with two drops of 2% NaCl solution resulted in a

decrease in corneal thickness of 18.5% over 90 minutes, while with the 5%

NaCl solution the cornea thinned by 29.9%. Both solutions appear

beneficial in treating corneal edema, though neither dehydrating agent

produced a statistically significant reduction in corneal thickness (P = 0.07).

L24 ANSWER 16 OF 31 MEDLINE

ACCESSION NUMBER: 96285806 MEDLINE

DOCUMENT NUMBER: 96285806 PubMed ID: 8713925

TITLE: The effect of osmolality on the shedding rate of the **corneal epithelium**.

AUTHOR: Wilson G

CORPORATE SOURCE: Vision Science Research Center, School of Optometry,

University of Alabama at Birmingham 35294-4390, USA.

CONTRACT NUMBER: EY03039 (NEI)

SOURCE: CORNEA, (1996 May) 15 (3) 240-4.

Journal code: 8216186. ISSN: 0277-3740.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199611

ENTRY DATE: Entered STN: 19961219

Last Updated on STN: 19961219

Entered Medline: 19961107

AB It has been stated that in dry eye **hyperosmolality** damages the epithelium of the ocular surface by increasing the rate at which cells are

shed. To test this hypothesis, paired excised rabbit corneas were

superfused with balanced salt solutions in which all conditions were held

constant except the osmolality in contact with the epithelium. For a period of 400 min the epithelium of one of the corneas was exposed

to one

of seven test osmolalities (200-425 mOsm/kg), whereas the other cornea was used as a control (305 mOsm/kg). The number of cells shed from each corneal surface was counted, and thickness changes in the epithelium and stroma were measured. Only hypoosmotic solutions of 260 mOsm/kg or less increased the number of cells shed relative to the control. None of the **hyperosmotic** solutions significantly increased the shedding rate. There was no significant change in the thickness of the epithelium, whereas the stroma swelled in hypoosmotic solutions and thinned in **hyperosmotic** solutions. It is concluded that **hyperosmolality** in the range encountered in dry eyes is not sufficient in itself to increase the shedding rate.

L24 ANSWER 15 OF 31 MEDLINE

ACCESSION NUMBER: 97343625 MEDLINE

DOCUMENT NUMBER: 97343625 PubMed ID: 9200164

TITLE: Sequential staining: the effects of sodium fluorescein, osmolality, and pH on human **corneal epithelium**.

AUTHOR: Thomas M L; Szeto V R; Gan C M; Polse K A

CORPORATE SOURCE: University of California at Berkeley, School of Optometry, USA.

CONTRACT NUMBER: EY-R01-07728 (NEI)

SOURCE: OPTOMETRY AND VISION SCIENCE, (1997 Apr) 74 (4) 207-10.

Journal code: 8904931. ISSN: 1040-5488.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199708

ENTRY DATE: Entered STN: 19970825

Last Updated on STN: 19980206

Entered Medline: 19970814

AB BACKGROUND: Previous reports have suggested that sequential applications of sodium fluorescein (NaF) to the ocular surface cause loss of **epithelial** cells. In those experiments the solutions were free of preservatives, but delivered a **hypertonic** and alkaline load. It is possible that either the **hyperosmolality**, NaF, and/or alkalinity may have contributed to the epithelial cell loss. Our study explored the possible impact of these three factors on epithelial integrity. METHODS: We used a paradigm in which we designed four test solutions to isolate the cytotoxic effects of the three factors. Fifteen subjects were exposed to one of the solutions on separate visits. One solution was instilled in both eyes, every 3 min, for a total of seven applications, and a slitlamp examination was performed. Staining was graded on a scale of 0 to 3 for each of five corneal sectors. RESULTS: Application of solution 1 (NaF, **hyperosmotic**, and alkaline) resulted in staining for all subjects. For the other three solutions (without NaF), insignificant staining occurred. CONCLUSIONS: The epithelium tolerates changes in pH and osmolality between 7.2 to 7.8 and 290 to 350, respectively. However, NaF when applied in multiple doses may be cytotoxic.

L24 ANSWER 2 OF 31 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

ACCESSION NUMBER: 2001:351674 BIOSIS

DOCUMENT NUMBER: PREV200100351674

TITLE: Osmosensitive taurine transporter expression and uptake by human **corneal epithelial** cells.

AUTHOR(S): Shioda, R. (1); Reinach, P. S.; Kaminogawa, S.; Shimizu,

M.; Hisatsune, T. (1); Miyamoto, Y. (1)

CORPORATE SOURCE: (1) Integrated Biosciences, Univ of Tokyo, Bunkyo, Tokyo Japan

SOURCE: IOVS, (March 15, 2001) Vol. 42, No. 4, pp. S588. print.

Meeting Info.: Annual Meeting of the Association for Research in Vision and Ophthalmology Fort Lauderdale, Florida, USA April 29-May 04, 2001

DOCUMENT TYPE: Conference

LANGUAGE: English

SUMMARY LANGUAGE: English

=> d his

(FILE 'HOME' ENTERED AT 10:27:45 ON 01 SEP 2002)

FILE 'MEDLINE, BIOSIS, CAPLUS' ENTERED AT 10:28:13 ON 01 SEP 2002

L1 4177 S DRY EYE OR XEROSIS OR HYPOLACRIMIA OR KERATOCONJUNCTIVITIS SIC

L2 251329 S ANIMAL MODEL

L3 49 S L1 AND L2

L4 43 DUP REM L3 (6 DUPLICATES REMOVED)

L5 11300 S CORNEA? EPITHELI?

L6 631428 S DAMAGE

L7 708684 S DAMAG?

L8 565797 S DESSICAT? OR DRY

L9 486 S L5(S)L6

L10 142 S L5(S)L8

L11 5 S L2 AND L10

L12 5 DUP REM L11 (0 DUPLICATES REMOVED)

L13 586 S L5(S)L7

L14 32 S L13 AND L8

L15 21 DUP REM L14 (11 DUPLICATES REMOVED)

L16 130776 S OSMOT? OR OSMOS?

L17 14 S L9 AND L16

L18 9 DUP REM L17 (5 DUPLICATES REMOVED)

L19 29959 S HYPERTONIC

L20 8 S L1 AND L19

L21 6 DUP REM L20 (2 DUPLICATES REMOVED)

L22 40993 S HYPERTONIC OR HYPEROSMO?

L23 40 S L22 AND L5

L24 31 DUP REM L23 (9 DUPLICATES REMOVED)

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1640 MORPHOLOGIC/TI  
1 MORPHOLOGICS/TI  
1641 MORPHOLOGIC/TI  
(MORPHOLOGIC OR MORPHOLOGICS)/TI  
13 MORPHOL/TI  
1654 MORPHOLOGIC/TI  
(MORPHOLOGIC OR MORPHOL)/TI  
961668 EFFECT/TI  
571823 EFFECTS/TI  
1529188 EFFECT/TI  
(EFFECT OR EFFECTS)/TI  
110 HYPEROSMOLARITY/TI

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NEWS 3 Apr 09 BEILSTEIN: Reload and Implementation of a New  
Subject Area  
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segment  
NEWS 13 Jul 22 USAN to be reloaded July 28, 2002;  
saved answer sets no longer valid  
NEWS 14 Jul 29 Enhanced polymer searching in REGISTRY  
NEWS 15 Jul 30 NETFIRST to be removed from STN  
NEWS 16 Aug 08 CANCERLIT reload  
NEWS 17 Aug 08 PHARMAMarketLetter(PHARMAML) - new on  
STN  
NEWS 18 Aug 08 NTIS has been reloaded and enhanced  
NEWS 19 Aug 19 Aquatic Toxicity Information Retrieval (AQUIRE)  
now available on STN  
NEWS 20 Aug 19 IFIPAT, IFICDB, and IFIUDB have been reloaded  
NEWS 21 Aug 19 The MEDLINE file segment of TOXCENTER has  
been reloaded  
NEWS 22 Aug 26 Sequence searching in REGISTRY enhanced  
NEWS 23 Sep 03 JAPIO has been reloaded and enhanced

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ENTRY      SESSION  
FULL ESTIMATED COST                      0.21      0.21

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=> s dry eye or keratoconjunctivitis sicca  
L1      4126 DRY EYE OR KERATOCONJUNCTIVITIS SICCA

=> s screen  
L2      125661 SCREEN

=> s l1 and l2  
L3      6 L1 AND L2

=> dup rem l3  
PROCESSING COMPLETED FOR L3  
L4      3 DUP REM L3 (3 DUPLICATES REMOVED)

=> d ti so l-3

L4 ANSWER 1 OF 3 MEDLINE                      DUPLICATE 1  
TI Air pollutants and tear film stability--a method for experimental  
evaluation.  
SO CLINICAL PHYSIOLOGY, (2001 May) 21 (3) 282-6.  
Journal code: 8309768. ISSN: 0144-5979.

L4 ANSWER 2 OF 3 MEDLINE  
TI Sensitivity and specificity of a screening questionnaire for **dry**  
**eye.**  
SO ADVANCES IN EXPERIMENTAL MEDICINE AND BIOLOGY,  
(1998) 438 807-20.  
Journal code: 0121103. ISSN: 0065-2598.

L4 ANSWER 3 OF 3 MEDLINE                      DUPLICATE 2  
TI Assessment of a patient-completed questionnaire for  
**keratoconjunctivitis sicca.**  
SO MEDICAL JOURNAL OF AUSTRALIA, (1988 Apr 18) 148 (8)  
395-8.  
Journal code: 0400714. ISSN: 0025-729X.

=> s model  
L5      3108267 MODEL

=> s l1 and l5  
L6      220 L1 AND L5

=> s treat?  
L7      6110040 TREAT?

=> s l6 and l7  
L8      79 L6 AND L7

=> dup rem l8  
PROCESSING COMPLETED FOR L8

L9 50 DUP REM L8 (29 DUPLICATES REMOVED)

=> l9 and not py>2000

L9 IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system.

For a list of commands available to you in the current file, enter

"HELP COMMANDS" at an arrow prompt (=>).

=> s l9 and not py>2000

MISSING TERM 'AND NOT'

The search profile that was entered contains a logical operator followed immediately by another operator.

=> s l9 not py>2000

L10 35 L9 NOT PY>2000

=> d ti so 1-35

L10 ANSWER 1 OF 35 MEDLINE

TI [Use of keratoprosthesis type "champagne cork"--case report].

Zastosowanie keratoprotezy typu "korek od szampana"--opis przypadku.

SO KLINIKA OCZNA, (2000) 102 (5) 361-5.

Journal code: 0376614. ISSN: 0023-2157.

L10 ANSWER 2 OF 35 MEDLINE

TI Microvascular submandibular gland transfer for severe cases of **keratoconjunctivitis sicca**.

SO PLASTIC AND RECONSTRUCTIVE SURGERY, (2000 Sep) 106 (3) 554-60; discussion 561-2.

Journal code: 1306050. ISSN: 0032-1052.

L10 ANSWER 3 OF 35 MEDLINE

TI Cyclosporine has a direct effect on the differentiation of a mucin-secreting cell line.

SO JOURNAL OF CELLULAR PHYSIOLOGY, (2000 Sep) 184 (3) 400-8.

Journal code: 0050222. ISSN: 0021-9541.

L10 ANSWER 4 OF 35 MEDLINE

TI Does androgen insufficiency cause lacrimal gland inflammation and aqueous tear deficiency?

SO INVESTIGATIVE OPHTHALMOLOGY AND VISUAL SCIENCE, (1999 May) 40 (6) 1261-5.

Journal code: 7703701. ISSN: 0146-0404.

L10 ANSWER 5 OF 35 MEDLINE

TI Ocular contact time of a carbomer gel (GelTears) in humans.

SO BRITISH JOURNAL OF OPHTHALMOLOGY, (1998 Oct) 82 (10) 1131-4.

Journal code: 0421041. ISSN: 0007-1161.

L10 ANSWER 6 OF 35 MEDLINE

TI [Important results of about 45 years balneo-medical research in Bad Hall].

Wichtige Ergebnisse aus rund 45 Jahren balneomedizinischer Forschung in Bad Hall.

SO WIENER MEDIZINISCHE WOCHENSCHRIFT. SUPPLEMENT, (1998) 148 (110) 3-11.

Ref: 70

Journal code: 0413007. ISSN: 0301-7826.

L10 ANSWER 7 OF 35 MEDLINE

TI [**Keratoconjunctivitis sicca** in Sjogren's syndrome: diagnostic significance of relative protein composition of tears]. Sukhoi keratokon"iunktivit pri sindrome Shegrena: diagnosticheskoe znachenie izmeneniia odnositel'nogo belkovogo sostava slezy.

SO VESTNIK OFTALMOLOGII, (1998 Mar-Apr) 114 (2) 40-2.

Journal code: 0415216. ISSN: 0042-465X.

L10 ANSWER 8 OF 35 MEDLINE

TI Lactoferrin suppresses loss of corneal epithelial integrity in a rabbit short-term **dry eye model**.

SO JOURNAL OF OCULAR PHARMACOLOGY AND THERAPEUTICS, (1998 Apr) 14 (2) 99-107.

Journal code: 9511091. ISSN: 1080-7683.

L10 ANSWER 9 OF 35 MEDLINE

TI Androgen stimulation of lacrimal gland function in mouse **models** of Sjogren's syndrome.

SO JOURNAL OF STEROID BIOCHEMISTRY AND MOLECULAR BIOLOGY, (1997 Feb) 60 (3-4) 237-45.

Journal code: 9015483. ISSN: 0960-0760.

L10 ANSWER 10 OF 35 MEDLINE

TI Clinical features, pathogenesis, and **treatment** of Sjogren's syndrome.

SO CURRENT OPINION IN RHEUMATOLOGY, (1996 Sep) 8 (5) 438-45. Ref: 104

Journal code: 9000851. ISSN: 1040-8711.

L10 ANSWER 11 OF 35 MEDLINE

TI Establishment of a rabbit short-term **dry eye model**.

SO JOURNAL OF OCULAR PHARMACOLOGY AND THERAPEUTICS, (1995 Winter) 11 (4) 503-8.

Journal code: 9511091. ISSN: 1080-7683.

L10 ANSWER 12 OF 35 MEDLINE

TI **Dry eye** with only decreased tear break-up time is sometimes associated with allergic conjunctivitis.

SO OPHTHALMOLOGY, (1995 Feb) 102 (2) 302-9.

Journal code: 7802443. ISSN: 0161-6420.

L10 ANSWER 13 OF 35 MEDLINE

TI Epidemiology, pathogenesis, animal **models**, and **treatment** of Sjogren's syndrome.

SO CURRENT OPINION IN RHEUMATOLOGY, (1994 Sep) 6 (5) 501-8. Ref: 89

Journal code: 9000851. ISSN: 1040-8711.

L10 ANSWER 14 OF 35 MEDLINE

TI **Treatment** of **keratoconjunctivitis sicca** in rabbits with 3-isobutyl-1-methylxanthine.

SO ARCHIVES OF OPHTHALMOLOGY, (1994 Dec) 112 (12) 1614-6.

Journal code: 7706534. ISSN: 0003-9950.

L10 ANSWER 15 OF 35 MEDLINE

TI Characteristics of a canine **model** of KCS: effective **treatment** with topical cyclosporine.

SO ADVANCES IN EXPERIMENTAL MEDICINE AND BIOLOGY, (1994) 350 583-94. Ref: 56

Journal code: 0121103. ISSN: 0065-2598.

L10 ANSWER 16 OF 35 MEDLINE

TI Collagen-based drug delivery and artificial tears.

SO JOURNAL OF OCULAR PHARMACOLOGY, (1994 Spring) 10 (1) 17-27.

Journal code: 8511297. ISSN: 8756-3320.

L10 ANSWER 17 OF 35 MEDLINE

TI Characterization of water retentive properties of hyaluronan.

SO CORNEA, (1993 Sep) 12 (5) 433-6.

Journal code: 8216186. ISSN: 0277-3740.

L10 ANSWER 18 OF 35 MEDLINE

TI Efficacy of laser punctal occlusion.

SO OPHTHALMOLOGY, (1992 Apr) 99 (4) 618-21.

Journal code: 7802443. ISSN: 0161-6420.

L10 ANSWER 19 OF 35 MEDLINE

TI An electrolyte-based solution that increases corneal glycogen and

- conjunctival goblet-cell density in a rabbit **model** for **keratoconjunctivitis sicca**.  
SO OPTHALMOLOGY, (1992 Apr) 99 (4) 600-4.  
Journal code: 7802443. ISSN: 0161-6420.
- L10 ANSWER 20 OF 35 MEDLINE  
TI Beneficial effects of a retinoic acid analog, CBS-211 A, on an experimental **model** of **keratoconjunctivitis sicca**.  
SO INVESTIGATIVE OPTHALMOLOGY AND VISUAL SCIENCE, (1992 Jan) 33 (1) 190-5.  
Journal code: 7703701. ISSN: 0146-0404.
- L10 ANSWER 21 OF 35 MEDLINE  
TI Eledoisin and lacrimal secretion in the rabbit.  
SO CURRENT EYE RESEARCH, (1990 Mar) 9 (3) 273-6.  
Journal code: 8104312. ISSN: 0271-3683.
- L10 ANSWER 22 OF 35 MEDLINE  
TI Spontaneous canine **keratoconjunctivitis sicca**. A useful **model** for human **keratoconjunctivitis sicca**: **treatment** with cyclosporine eye drops.  
SO ARCHIVES OF OPTHALMOLOGY, (1989 Aug) 107 (8) 1210-6.  
Journal code: 7706534. ISSN: 0003-9950.
- L10 ANSWER 23 OF 35 MEDLINE  
TI **Keratoconjunctivitis sicca** in the dog following 5-aminosalicylic acid administration.  
SO HUMAN TOXICOLOGY, (1987 Sep) 6 (5) 377-83.  
Journal code: 8206759. ISSN: 0144-5952.
- L10 ANSWER 24 OF 35 MEDLINE  
TI Tear physiology and **dry eyes**.  
SO SURVEY OF OPTHALMOLOGY, (1977 Sep-Oct) 22 (2) 69-87.  
Ref: 119  
Journal code: 0404551. ISSN: 0039-6257.
- L10 ANSWER 25 OF 35 MEDLINE  
TI **Keratoconjunctivitis sicca**.  
SO TRANSACTIONS - AMERICAN ACADEMY OF OPTHALMOLOGY AND OTOLARYNGOLOGY, (1976 Jul-Aug) 81 (4 pt 1) OP619-23.  
Journal code: 7506085. ISSN: 0002-7154.
- L10 ANSWER 26 OF 35 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
TI Development of a simple **dry eye model** in the albino rabbit and evaluation of some tear substitutes.  
SO Ophthalmic Research, (May-June, 1999) Vol. 31, No. 3, pp. 229-235.  
ISSN: 0030-3747.
- L10 ANSWER 27 OF 35 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
TI The effects of artificial tear solutions on wound healing in full thickness corneal incisions.  
SO Acta Physiologica Hungarica, (1997) Vol. 85, No. 3, pp. 251-258.  
ISSN: 0231-424X.
- L10 ANSWER 28 OF 35 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
TI The natural history of **dry-eye** disease: Implications for diagnosis and **treatment**.  
SO Journal of Rheumatology, (1997) Vol. 24, No. SUPPL. 50, pp. 49.  
Meeting Info.: VIth International Symposium on Sjogren's Syndrome  
Avon, Connecticut, USA October 15-18, 1997  
ISSN: 0315-162X.
- L10 ANSWER 29 OF 35 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
TI Characteristics of a canine **model** of KCS: Effective **treatment** with topical cyclosporine.
- SO Sullivan, D. A. [Editor]. Advances in Experimental Medicine and Biology, (1994) Vol. 350, pp. 583-594. Advances in Experimental Medicine and Biology; Lacrimal gland, tear film, and dry eye syndromes: Basic science and clinical relevance.  
Publisher: Plenum Press 233 Spring Street, New York, New York, USA.  
Meeting Info.: International Conference Southampton, Bermuda November 14-17, 1992  
ISSN: 0065-2598. ISBN: 0-306-44676-6.
- L10 ANSWER 30 OF 35 CAPLUS COPYRIGHT 2002 ACS  
TI **Dry eye treatment** with eye drops that stimulate mucin production  
SO Advances in Experimental Medicine and Biology (1998), 438(Lacrimal Gland, Tear Film, and Dry Eye Syndromes 2), 965-968  
CODEN: AEMBAP; ISSN: 0065-2598
- L10 ANSWER 31 OF 35 CAPLUS COPYRIGHT 2002 ACS  
TI Gender and androgen **treatment** influence the expression of proto-oncogenes and apoptotic factors in lacrimal and salivary tissues of MRL/lpr mice  
SO Clinical Immunology and Immunopathology (1998), 86(1), 59-71  
CODEN: CLIIAT; ISSN: 0090-1229
- L10 ANSWER 32 OF 35 CAPLUS COPYRIGHT 2002 ACS  
TI An in vitro technique for measuring contact angles on the corneal surface and its application to evaluate corneal wetting properties of water soluble polymers  
SO International Journal of Pharmaceutics (1995), 119(2), 149-63  
CODEN: IJPHDE; ISSN: 0378-5173
- L10 ANSWER 33 OF 35 CAPLUS COPYRIGHT 2002 ACS  
TI Preparation of polypeptide-polymer ion conjugates for **treatment** of wounds  
SO Jpn. Kokai Tokkyo Koho, 12 pp.  
CODEN: JKXXAF
- L10 ANSWER 34 OF 35 CAPLUS COPYRIGHT 2002 ACS  
TI Dehydroepiandrosterone compositions and therapy for **dry eye** syndrome  
SO PCT Int. Appl., 30 pp  
CODEN: PIXXD2
- L10 ANSWER 35 OF 35 CAPLUS COPYRIGHT 2002 ACS  
TI Ocular androgen therapy in Sjogren's syndrome  
SO PCT Int. Appl., 33 pp.  
CODEN: PIXXD2
- => d ibib ab 30,26,22,20,19,14
- L10 ANSWER 30 OF 35 CAPLUS COPYRIGHT 2002 ACS  
ACCESSION NUMBER: 1998:562115 CAPLUS  
DOCUMENT NUMBER: 129:310846  
TITLE: **Dry eye treatment** with eye drops that stimulate mucin production  
AUTHOR(S): Hamano, Takashi  
CORPORATE SOURCE: Dep. Ophthalmol., Osaka Univ. Med. Sch., Suita, Osaka, Japan  
SOURCE: Advances in Experimental Medicine and Biology (1998), 438(Lacrimal Gland, Tear Film, and Dry Eye Syndromes 2), 965-968  
CODEN: AEMBAP; ISSN: 0065-2598  
PUBLISHER: Plenum Publishing Corp.  
DOCUMENT TYPE: Journal

LANGUAGE: English  
AB In conjunctival goblet cells, 1.0% gefarnate eye drops increased the d. of

cells. In the rabbit **dry eye model** **treated** with the gefarnate eye drops, there was less staining, indicating that desiccation of the cornea caused less damage. Thus, gefarnate-contg. eye drops stimulate the expression of transmembrane mucin and stimulate mucin prodn. enough to decrease the corneal epithelial damage of **dry eye**.

L10 ANSWER 26 OF 35 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

ACCESSION NUMBER: 1999:307975 BIOSIS

DOCUMENT NUMBER: PREV199900307975

TITLE: Development of a simple **dry eye model** in the albino rabbit and evaluation of some tear substitutes.

AUTHOR(S): Burgalassi, Susi (1); Panichi, Luana; Chetoni, Patrizia;

Saettone, M. Fabrizio; Boldrini, Enrico

CORPORATE SOURCE: (1) Department of Pharmaceutical Sciences, University of

Pisa, Via Bonanno 33, I-56126, Pisa Italy

SOURCE: Ophthalmic Research, (May-June, 1999) Vol. 31, No. 3, pp.

229-235.

ISSN: 0030-3747.

DOCUMENT TYPE: Article

LANGUAGE: English

SUMMARY LANGUAGE: English

AB The present paper is concerned with the development of a simple **dry eye model** in the rabbit, induced by daily repeated instillations of 1.0% atropine sulphate. The evolution of the **dry eye** syndrome in the animals was assessed by the Schirmer I test and by examination of the cornea after fluorescein staining. The **model** produced rapidly some typical **dry eye** symptoms and could be satisfactorily used for a preliminary assessment of the protective activity of some polymeric tear substitutes.

These were based on hydroxypropylmethylcellulose, sodium hyaluronate, sodium polyacrylate or tamarind gum. The latter polymer showed the best

overall results. Ferning tests on the formulations were also performed:

their validity as predictors of the efficacy of tear substitutes is discussed.

L10 ANSWER 22 OF 35 MEDLINE

ACCESSION NUMBER: 89334669 MEDLINE

DOCUMENT NUMBER: 89334669 PubMed ID: 2757551

TITLE: Spontaneous canine **keratoconjunctivitis sicca**. A useful **model** for human **keratoconjunctivitis sicca**: **treatment** with cyclosporine eye drops.

AUTHOR: Kaswan R L; Salisbury M A; Ward D A

CORPORATE SOURCE: Department of Small Animal Medicine, College of Veterinary

Medicine, University of Georgia, Athens 30602.

SOURCE: ARCHIVES OF OPHTHALMOLOGY, (1989 Aug) 107 (8) 1210-6.

Journal code: 7706534. ISSN: 0003-9950.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals

ENTRY MONTH: 198909

ENTRY DATE: Entered STN: 19900309

Last Updated on STN: 19900309

Entered Medline: 19890901

AB Thirty-six sequential cases of canine **keratoconjunctivitis sicca** (KCS) were **treated** with ophthalmic cyclosporine.

The effects of topical cyclosporine were twofold: (1) cyclosporine increased tear production by 5 mm/min or greater in all cases of spontaneous KCS having an initial Schirmer's Tear Test value greater than

2 mm/min and in 59% of eyes with an initial Schirmer's Tear Test value of

0 to 2 mm/min, and (2) cyclosporine caused marked regression of chronic

corneal neovascularization and granulation even in eyes in which lacrimation failed to improve. Additional benefits of topical cyclosporine

were reduced mucopurulent conjunctivitis, rapid healing of nonhealing

corneal ulcers, and reduced dependence on frequent topical

**treatments** of KCS. Twelve normal beagles **treated** with

topical cyclosporine also had a reversible increase in lacrimation

compared with baseline or placebo control-**treated** dogs.

L10 ANSWER 20 OF 35 MEDLINE

ACCESSION NUMBER: 92112433 MEDLINE

DOCUMENT NUMBER: 92112433 PubMed ID: 1730541

TITLE: Beneficial effects of a retinoic acid analog, CBS-211 A, on

an experimental **model** of **keratoconjunctivitis sicca**.

AUTHOR: Driot J Y; Bonne C

CORPORATE SOURCE: Chauvin Laboratory Research Centre, Montpellier, France.

SOURCE: INVESTIGATIVE OPHTHALMOLOGY AND VISUAL SCIENCE, (1992 Jan)

33 (1) 190-5.

Journal code: 7703701. ISSN: 0146-0404.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199202

ENTRY DATE: Entered STN: 19920308

Last Updated on STN: 19920308

Entered Medline: 19920220

AB We report the effects of CBS-211 A, a synthetic retinoic acid analog, on a

previously described experimental **model** of

**keratoconjunctivitis sicca** (KCS) in the rabbit. A 9-week

topical **treatment** with 0.02% CBS-211 A in aqueous vehicle

significantly increased the conjunctival goblet cell density (P less

than

0.01, impression cytology counting), stopped the evolution of the corneo-conjunctival surface alteration (P less than 0.05, rose bengal test), and restored a basically normal mucosecretory product quality

in

goblet cells (lectin histochemistry) compared to vehicle **treatment**

. The results assess the efficacy of this compound in reversing KCS

pathology in a relevant **model** different from general vitamin A

deficiency **models**, and strongly support the rationale for using

such a well-tolerated retinoid in **dry eye**

**treatment**.

L10 ANSWER 19 OF 35 MEDLINE

ACCESSION NUMBER: 92262107 MEDLINE

DOCUMENT NUMBER: 92262107 PubMed ID: 1584579

TITLE: An electrolyte-based solution that increases corneal glycogen and conjunctival goblet-cell density in a rabbit **model** for **keratoconjunctivitis sicca**.

AUTHOR: Gilbard J P; Rossi S R

CORPORATE SOURCE: Cornea Research Unit, Eye Research Institute, Boston, MA 02114.

CONTRACT NUMBER: EY-03373 (NEI)

SOURCE: OPHTHALMOLOGY, (1992 Apr) 99 (4) 600-4.

Journal code: 7802443. ISSN: 0161-6420.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)



LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 199206  
ENTRY DATE: Entered STN: 19920626  
Last Updated on STN: 19920626  
Entered Medline: 19920615

AB Thirty-two rabbits with monocular surgically induced **keratoconjunctivitis sicca** (KCS) underwent masked **treatment** for 12 weeks with 1 of 4 artificial tear solutions. Disease in each group of **treated** rabbits was compared with disease in untreated KCS controls. One of the solutions tested was a unique electrolyte-based formulation shown previously to preserve normal goblet-cell density after extended exposure in normal rabbits. Only the electrolyte-based solution decreased elevated tear osmolarity and sodium after 9 weeks of **treatment** (P less than 0.05). At 20 weeks, mean corneal glycogen and conjunctival goblet-cell density in eyes **treated** with the electrolyte-based solution increased significantly relative to untreated KCS controls (P less than 0.01). With the other three solutions, mean glycogen levels and goblet-cell densities were either decreased relative to untreated KCS controls (P less than 0.05) or were unchanged. The electrolyte-based solution is the first **treatment** to increase corneal glycogen and conjunctival goblet cells in a rabbit **model** of KCS.

L10 ANSWER 14 OF 35 MEDLINE  
ACCESSION NUMBER: 95085434 MEDLINE  
DOCUMENT NUMBER: 95085434 PubMed ID: 7527631  
TITLE: **Treatment of keratoconjunctivitis sicca** in rabbits with 3-isobutyl-1-methylxanthine.  
AUTHOR: Gilbard J P  
CORPORATE SOURCE: Schepens Eye Research Institute, Department of Ophthalmology, Harvard Medical School, Boston, Mass.  
CONTRACT NUMBER: EYO3373 (NEI)  
SOURCE: ARCHIVES OF OPHTHALMOLOGY, (1994 Dec) 112 (12) 1614-6.

Journal code: 7706534. ISSN: 0003-9950.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals  
ENTRY MONTH: 199501  
ENTRY DATE: Entered STN: 19950124  
Last Updated on STN: 19960129  
Entered Medline: 19950110

AB OBJECTIVE: To examine the effects of topical 3-isobutyl-1-methylxanthine **treatment** on tear-film osmolarity, conjunctival goblet-cell densities, and corneal epithelial glycogen levels in a rabbit **model** for **keratoconjunctivitis sicca**. METHODS: **Keratoconjunctivitis sicca** was surgically induced in the right eyes of 16 rabbits. In a masked protocol, eight of these operated-on eyes underwent **treatment** for 12 weeks with a 3.0-mmol solution of 3-isobutyl-1-methylxanthine. The remaining eight operated-on eyes were left untreated and served as controls. RESULTS: The 3-isobutyl-1-methylxanthine **treatment** resulted in a rapid and significant decrease in tear osmolarity and sodium (P < .05) and potassium levels (P < .05) and a significant increase in conjunctival goblet-cell densities and corneal epithelial glycogen levels compared with untreated and operated-on controls (P < .001). CONCLUSIONS: 3-Isobutyl-1-methylxanthine rapidly and significantly decreased tear-film osmolarity in this rabbit **model** for **keratoconjunctivitis sicca** and restored

conjunctival goblet-cell densities and corneal glycogen levels, thus reversing the disease process.

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L1 4126 S DRY EYE OR KERATOCONJUNCTIVITIS SICCA  
L2 125661 S SCREEN  
L3 6 S L1 AND L2  
L4 3 DUP REM L3 (3 DUPLICATES REMOVED)  
L5 3108267 S MODEL  
L6 220 S L1 AND L5  
L7 6110040 S TREAT?  
L8 79 S L6 AND L7  
L9 50 DUP REM L8 (29 DUPLICATES REMOVED)  
L10 35 S L9 NOT PY>2000

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